

**STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD**

**IN THE MATTER OF THE APPEAL
PETITION FOR HEARING ON
AIR QUALITY PERMIT NO. 8585.**

No. EIB 21-48

**Earth Care New Mexico
By Miguel Acosta Munoz, Co-Director
and Linda Marianiello, as an individual;
Petitioners.**

v.

New Mexico Environment Department

v.

**Associated Asphalt and Materials, LLC
Applicant.**

Written Report of Michael Schneider

I, Michael Schneider, hereby swear and affirm that the following is true to the best of my knowledge. I am qualified and competent to give this declaration, and the factual statements herein are true and correct to the best of my knowledge, information and belief. The opinions expressed herein are based on my best professional judgment.

1. Name and Title

My name is Michael Schneider, I am an Environmental Scientist, independently retained by the New Mexico Environmental Law Center.

2. Qualifications

I have a Bachelor of Science in Agricultural Economics from Ohio State University. From February 1993 to January 2017, I worked as an Environmental Scientist with the New Mexico Environment Department (“NMED” or “the Department”) in Santa Fe, New Mexico. I also served as a Contractor for Energy Strategies in Salt Lake City, Utah from December 2013 to April 2014.

I retired from the New Mexico Environment Department in 2017 and have been retained by the New Mexico Environmental Law Center (“NMELC”) to work as a consultant on this project. I have extensive experience with air emissions work, greenhouse gas emissions rules and the implementation of the Clean Air Act, the Air Quality Control Act and the requisite permitting actions and regulations.

At NMED, I reviewed and processed hundreds of air quality permit applications including hot mix asphalt batch plants, oil and gas wellhead sites, mineral processing, natural gas processing plants, refineries, food processing and electric generating facilities. I completed source applicability determinations of federal and state air quality regulations and documented those determinations in the statements of basis for each permitting action. I wrote enforceable permit conditions to ensure ambient air quality standards were met, provided expert testimony on several air quality issues and processed Prevention of Significant Deterioration (“PSD”) air permit applications including top-down Best Available Control Technology analyses to determine cost-effectiveness of emission control operations.

During my time at NMED, I also provided training on the Clean Air Act and provided regulatory and technical comments on proposed Clean Air Act Rules. I investigated multiple complaints, conducted inspections and drafted notices of violations and consent agreements between permittees, including asphalt and non-metallic mineral processing facilities, and the Department. Commencing in 2010, I was the project lead responsible for organizing and coordinating the triennial update of New Mexico’s economy-wide Greenhouse Gas emissions inventory, which evaluates emissions on a consumption and per capita basis and requires the review and analysis of data information from various sectors.

In 2011, I organized and facilitated an 11-week Climate Master Class to educate participants in climate benefitting behaviors. In 2013, I presented on the Compilation and Analysis of New Mexico's Greenhouse Gas Emissions to the Energy Utility Environment Conference and in 2007 presented Permitting and Planning Issues related to Four Corners Development to the National Association of Clean Air Agencies and the Navajo Nation Environmental Conference. In 2010 and 2016 I also published the Inventory of New Mexico Greenhouse Gas Emissions as the project team lead with New Mexico's Greenhouse Gas Emissions Inventory.

As a private consultant to Energy Strategies, LLC, I reviewed and analyzed EPA's Energy Efficiency and Renewable Energy Road Map and made recommendations to the State of Utah as to how this program could be incorporated into their PM_{2.5} State Implementation Plan. To do so, I compiled and analyzed electric utility generation and emissions data from the National Emissions Inventory and the Clean Air Markets Database for sources contributing to the PM_{2.5} nonattainment area. My complete resume is attached to this report as Attachment A.

3. Analysis and Conclusions

I will offer the following conclusions:

1. The Environmental Improvement Board ("EIB" or "Board") should reverse the New Mexico Environment Department's ("NMED" or "Department") decision to issue this permit because the permit application should have been denied due to the fact that the monitored emissions background concentration data relied on by the Applicant and approved by the Department are incomplete and results in an inaccurate PM_{2.5} expected emissions concentration.
2. The EIB should remand the permit back to NMED for the additional consideration of the cumulative impacts of this operation on nearby communities in permitting to comply with recent US Environmental Protection Agency ("EPA") Environmental Justice guidance and ensure

that issuing this permit to Associated Asphalt and Materials, LLC (“AAM”) does not disproportionately impact neighboring communities.

3. If the decision to approve the permit is upheld by the EIB, many permit conditions should be strengthened to ensure that the permit is federally enforceable the operation will comply with applicable air quality standards.

- a. The Board Should Reverse the New Mexico Environment Department’s Decision to Issue Permit No. AQB-8585.

In approving AAM’s application for Permit AQB-8585, the Department has inappropriately accepted the Applicant’s air dispersion modeling which relies on incomplete and insufficient data to demonstrate the operation’s expected ambient impact. In order to evaluate a permit application, the Department must analyze whether an operation will cause or contribute to an exceedance of the National Ambient Air Quality Standards (“NAAQS”) or the New Mexico Ambient Air Quality Standards (“NMAAQs”) for relevant pollutants. See 20.2.72.208 NMAC. It is the responsibility of the Department to ensure that any polluting operation needing a construction permit operates in compliance with these standards. In order to determine whether an operation will comply with the NAAQS, the Applicant must add an approved background monitored concentration amount for each modeled pollutant to the expected facility and neighboring source impact of that pollutant in order to come to a total expected concentration amount for the area. *New Mexico Air Quality Bureau Air Dispersion Modeling Guidelines, October 2020* at 42; accessible here: https://www.env.nm.gov/wp-content/uploads/sites/2/2017/01/NM_AirDispersionModelingGuidelines_26October2020.pdf (last viewed 2/4/2022) [03-22-21 Community Ex. 3]. These background concentrations are determined by taking an average of three years of monitored concentration data from the appropriate air monitor for the area. *Id.* at 49. At issue in this case is the Applicant’s use of, and

the Department's approval of, a PM 2.5 background concentration amount that is inaccurate and insufficient to satisfy regulatory requirements, and, as such, cannot be used to accurately determine the overall expected impact of emissions from the AAM operation.

Department guidance states, "It is very important to use recent monitoring data, because concentration trends are likely to change over time *Id.* at 42. The guidance goes on to say that a modeler should choose the highest background concentration amount for each period for the region that best describes the modeling domain. *Id.* Background concentrations may be refined to take into account patterns in daily and monthly fluctuations in concentration. *Id.* at 43. The 24-hour refined background concentration is made of an average of three years of data. *Id.* In this case, however, the Department seemingly ignored its own guidance, providing PM 2.5 background concentration data based on only 1.5 years of data more than 7 years old, yet still claiming that the 24-hour refined concentration is based on three years of data. *Id.* at 49.

The background concentration data relied on by the Applicant and approved for use by the Department came from an air monitor located at the Harold Runnels building located at 1190 St. Francis Dr., in Santa Fe ("Runnels monitor"). The Runnels monitor, which is located several miles away from the proposed facility was, however, discontinued entirely for use by the Department on June 11, 2014 due to historically low pollutant concentration readings and the existence of the Santa Fe Airport Monitor, which is nearer the proposed AAM facility. **[3-22-21 Community Ex. 4 at 2; See also Community Ex. 5]**

As mentioned above, the Bureau's most recent Air Modeling Guidelines claim that the 24-hour 98th percentile PM 2.5 background concentration data is a three-year average based on averages from the years 2013, 2014 and 2015. **[03-22-21 Community Ex. 3 at 49]**. This claim, however, is impossible, given that the Department shut this monitor down halfway through 2014,

as explained above. The proposed location of this plant is fortuitous in that it has an active air quality monitor, the Santa Fe Airport Monitor, located nearby that provides for more accurate and up to date background concentration data. Those data give the Department the opportunity to more accurately calculate actual monitored background concentrations to be added to the modeled impacts of the AAM facility and surrounding sources in order to ensure the operation's compliance with the NAAQS.. This is especially important given that, using the outdated inputs from the Runnels monitor, the Applicant is already sitting at 97.2% and 99.3% of the 24-hour and annual NAAQS for PM_{2.5}—a pollutant known to cause severe health impacts at elevated concentrations including premature death in people with heart or lung disease, heart attacks, decreased lung function and asthma. See Air Quality Bureau Air Dispersion Modeling Summary for Permit No. 8585 at 8 [**AR No. 6, Bates 000430-000439**]; See also United States Environmental Protection Agency *Health and Environmental Effects of Particulate Matter*, Accessible here: <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm> (last viewed Feb. 7, 2022). The Bureau, however, ignored the existence of the Airport Monitor and its more up-to-date data entirely, for seemingly no reason other than the use of such data would have required either the denial of AAM's application entirely or, in the event the permit was issued, required stricter permit conditions or the use of better technology, required the operation be located farther away from communities, or at the very least, required a reduction in the amount of asphalt the AAM plant could produce. Instead of implementing any of these options, however, the Department chose to ignore relevant monitoring data and issue a permit to an operation with known permit violations, allowing it to emit right up to the limit of the air quality standards.

At the initial hearing on the permit in March 2021, when Community challenged the use of background PM 2.5 concentration data made of an incomplete average of data from the Runnel's Monitor, Department witness, Mr. Eric Peters, was unable to defend the Department's use of this inaccurate background air quality data. The Department initially claimed that the Airport Monitor data could not be used because the Airport Monitor was not approved for use by the EPA for purposes of collecting background air quality data. Mr. Peters stated, incorrectly, that because the Airport Monitor was not an approved Federal Reference Method (FRM) monitor, the old and incomplete data from the Runnel's building was sufficient to satisfy the Department's Air Modeling requirements. **03-22-21 TR at 252-253.** Making the Department's decision to ignore relevant data even more arbitrary, Mr. Peters was completely unaware that the Airport Monitor is, in fact, an EPA approved monitor: a Federal Equivalent Method (FEM) monitor, which is approved by EPA for determining background emissions concentrations and is recognized by the Department as such. **[03-23-21 Community Rebuttal Ex. 3].**

Not only did Mr. Peters not know, at the time of the hearing, that the Airport Monitor was approved for use by EPA and recommended for use by the Department, but, after Community witnesses presented evidence that the Airport Monitor and its data can, and should, be used to determine a background PM2.5 concentrations, Mr. Peters changed his position. Mr. Peters stated that, though the Airport Monitor was approved for use by EPA, he did not know the Airport Monitor was EPA-approved until he heard the testimony presented by Community on day two of the hearing. **03-24-21 TR at 540:19-23.** Mr. Peters agreed that the Airport Monitor was actually approved for that use and that the Bureau simply has not done any review of the data in the last 5 years, seemingly choosing administrative expediency

over performing the requisite due diligence of reviewing permit applications in order to protect public health.¹ **03-24-21 TR at 546:1-11.** Mr. Peters stated that the Bureau simply did not have enough time to review new data from the Airport Monitor for this purpose prior to the receipt of AAM's application in 2019, despite the fact that the Airport Monitor has been in operation since at least 2016. It is worth noting, however, that the Bureau, in 2016, was able to review air monitor data from 2013, 2014 and 2015 to determine the three-year average for background concentration calculation purposes at all other monitoring locations, meaning that data from the Airport Monitor for 2016, 2017 and 2018 could have been reviewed by the Bureau in 2019 and suggesting time for review is not the reason as to why the Bureau has continued to ignore the existence of these data. **03-24-21 TR at 542.**

This apparent dedication of the Department to industry interests is incredibly alarming. As an air dispersion modeler for the Bureau, Mr. Peters has analyzed and performed air dispersion modeling for over 100 projects² and should have been aware that the background concentration data being relied on by the applicant was unreliable and, in fact, had been determined to be unreliable as early as 2013. In fact, when asked why Mr. Peters never reviewed the background concentrations coming from the Airport Monitor, he stated it was because he was, "unaware that it was an FEM monitor," and asserted, "Santa Fe is not like southern New Mexico where there is more pollution." **03-24-21 TR at 544:16-23.** The fact that the Bureau is more concerned with the accuracy of air monitoring data depending on the location of the pollution in the state is only more

¹ To me, this is indicative of the longstanding culture of NMED, prioritizing permit processing to meet industry needs at the expense of overburdened communities. As explained in further detail in section b. below, in addition to being required to actually follow its own guidance, the Department should be required to consider environmental justice issues and to use EPA's EJSCREEN tool in order to better understand the negative impacts of air pollution permitting on already overburdened communities.

² 03-22-21 NMED Ex. 4.

alarming, as it suggests the Bureau is willing to put certain residents at risk unless or until a certain undefined, arbitrary pollution threshold is met.

Mr. Peters was, or should have been, aware of the existence of adequate data from the Airport Monitor. The Bureau's 2013 Annual Network Review, included as Community Exhibit 4, explains that the BAM 1020 air monitor, the same type used at the Santa Fe Airport, plainly explains that this monitor type meets EPA requirements. **[03-22-21 Community Ex. 3 at 2]**. This means Mr. Peters should have been aware of the monitor beginning in 2013. Further, the Bureau provided Community with data from the Airport Monitor in February 2020, suggesting the Bureau was certainly aware of the more accurate, up to date data. **[03-22-21 Community Ex. 24]**. Because PM 2.5 has known negative health impacts, and, using this incomplete and inaccurate data, the operation is permitted to operate almost at the PM 2.5 NAAQS, the Department has a duty to ensure the data relied on by the applicant is accurate and the operation will not harm members of nearby communities. If it is true, as Mr. Peters claimed, that the modeling staff of the Department had simply not been informed of the change of the monitors, leading to his lack of knowledge regarding the appropriateness of the data from the Airport Monitor,³ I would point out that incomplete and inadequate communication within the Department and "administrative expediency" should not dictate permitting decisions, especially when overburdened communities are likely to be adversely impacted, as explained below.

Furthermore, EPA's scientists concluded recently that current epidemiological evidence supports lowering the annual PM_{2.5} standard further to adequately protect public health, meaning that, once lowered, the AAM operation will almost certainly operate in violation of the PM 2.5 NAAQS, since it is proposed to be permitted at 97.2% and 99.3% of the 24-hour and

³ 03-23-21 TR 488: 13-25; 489: 1-5.

annual NAAQS for PM2.5. [03-22-21 Community Ex. 13]. Without using up to date monitoring background data, the Department cannot reasonably conclude that the AAM operation will not contribute to a NAAQS/NMAAQs exceedance in this area and, as such, cannot reasonably issue AAM an air pollution permit. Because the Environmental Improvement Board has the authority to sustain, modify, or reverse the actions taken by the New Mexico Environment Department based on its duty to prevent and abate air pollution, the Board should reverse the Department's decision to issue a construction permit to AAM.

- b. The Permit Should be Remanded to the Department for a Cumulative Impacts Analysis.

The Biden Administration has made clear the national “commitment to racial equity, the consistent and systemic fair, just and impartial treatment of all individuals, including members of underserved and historically marginalized communities, who have been systematically denied a full opportunity to participate in an equitable world.” See *Executive Order on Advancing Racial Equity and Support for Underserved Communities through the Federal Government*, January 20, 2021, (Executive Order 13985), Attached to this Report at Attachment B. As part of this Executive Order, the Biden Administration has directed all federal agencies, including EPA, to promote the equitable delivery of government benefits and equitable opportunities. *Id.*

Based on this Order, EPA Administrator Michael Regan, on April 7, 2021, announced agency actions to advance environmental justice, directing all EPA offices to clearly integrate environmental justice concerns into their plans and actions. Regan, in his announcement, said, “Too many communities whose residents are predominantly people of color, indigenous, or low-income, continue to suffer from disproportionately high pollution levels and the resulting adverse health and environmental impacts.” US EPA, *EPA Administrator Announces Agency Actions to*

Advance Environmental Justice (April 7, 2021) Accessible here:

<https://www.epa.gov/newsreleases/epa-administrator-announces-agency-actions-advance-environmental-justice> (last viewed Feb. 7, 2022). As such, Administrator Regan has called on all EPA offices to take **immediate and affirmative steps to incorporate environmental justice** considerations into their work, including assessing impacts to pollution-burdened, underserved, and tribal communities in regulatory development processes and to consider regulatory options to maximize benefits to these communities, among other things. *Id.* (emphasis added). EPA defines environmental justice as the fair treatment and meaningful involvement of all people, regardless of race, color, culture, national origin, income and educational levels with respect to the development, implementation, and enforcement of protective environmental laws, regulations and policies. US EPA, EJ 2020 Glossary, Accessible here:

<https://www.epa.gov/environmentaljustice/ej-2020-glossary> (last viewed Feb. 7, 2022).

NMED, as a state agency that must follow EPA guidance, should also follow this most recent directive in order to fulfil its mission of protecting and restoring the environment and fostering a healthy and prosperous New Mexico for present and future generations.⁴ To do so, the Department should go beyond what is already required by the applicable permitting regulations in terms of assessing the cumulative pollution burden coming from AAM and assess the impacts relating to environmental justice affecting the communities nearest the AAM operation.

Going beyond the minimum requirements of the permitting regulations is something the Bureau has already done in this case. In testimony before the Department, Air Quality Bureau staff consistently claimed to have gone above and beyond in regard to community engagement

⁴ <https://www.env.nm.gov/general/disclaimer/>

surrounding the permit. For example, Kathleen Primm, Permit Specialist in the Minor Source Unit of the Permitting Section of the Air Quality Bureau, in her written testimony provided at the March 2021 hearing, stating, “Though not required by regulation, AQB made efforts to physically post the Notice of Hearing, FAQs, Fact Sheet, and Introduction to Air Permitting, all in English and in Spanish, (Notice Packets) in public spaces near the proposed facility.” **[03-22-21 NMED Ex. 1, p. 21, lines 4-7]**. This practice was, according to the Bureau, done every time new notice of the hearing was required. *Id.*

While we applaud the Bureau using its discretion to go beyond the minimum public notice requirements required by applicable regulations, it is curious that the Bureau consistently claims it cannot go beyond the bare minimum requirements in order to better protect human health and address concerns actually identified by the Community. For example, the Bureau could have enhanced and strengthened permit requirements, as explained by Community experts at the March 2021 hearing, and required strengthened emissions controls and ongoing monitoring to ensure the AAM operation complies with air quality standards. Instead, the Department took the position that implementing these controls would amount to bullying their industry partners—an alarming consideration taken into account by the Department. **03-24-21 TR 535: 21-25.**

At the March 2021 hearing, members of the public repeatedly testified to the fact that the community nearest the plant, a community of color and lower socioeconomic status, faces higher rates of asthma, allergies and covid-19 – all conditions exacerbated by air pollution. Upon review of the hearing transcript, for example:

Selma Gutierrez, a representative of the Santa Fe Mutual Aid, a network providing support to South Side residents, stated, “You [the Department] might know that the South Side

of Santa Fe area code 87507 have been one of the areas hardest hit by the pandemic. Their health is at risk ... As a member of the community and having always lived in the South Side of Santa Fe, I'm here to be their voice and ask you to deny this permit until the company can prove that residents in the area ... will not be adversely affected." **03-22-21 TR 44: 18 through 46:2.**

Domenica Nieto, Santa Fe resident, read a petition signed by 319 South Side residents stating, "We residents of the impacted neighborhoods are concerned about the negative impacts this [AAM] operation will have on air quality, noise and vehicle traffic on public roads, degradation of natural beauty and quality of life for residents ... and increase the impact on our children's lungs." **03-22-21 TR 53:15-24.** She went on to read, "We are concerned about environmental racism. More and more polluting businesses are coming to the South Side of Santa Fe. This is the most densely populated part of Santa Fe and is home to the greatest number of youth, low-income and immigrant families. Our community is already the most impacted by COVID, and now we may see increased rates of asthma and other diseases in our children." *Id.* **at 57:2-9.**

Lastly, Community expert Dr. Lance Chilton spoke to the detrimental health impacts of exposure to fine particulate matter, the PM_{2.5} expected to be emitting by the AAM plant, explaining, for example, that those with asthma and other chronic obstructive pulmonary disease are subject to marked worsening of their conditions whenever they are exposed to large amounts of small particulate matter, especially if that exposure occurs over long periods of time, as would occur from the AAM operation. *Id.* **at 179: 10-23.**

Instead of addressing community concerns, the Bureau testified that the Consolidated Site would emit less pollution than the current AAM permit allows and, claimed without basis, that the permit issued to AAM was more protective of human health and the environment than the

current operation, dismissing community concerns. This testimony at the March hearing is especially concerning because the new, “better” permit issued to AAM allows for PM 2.5 concentrations at 99.3% of the NAAQS. These claims are not sufficient to demonstrate the permit should be issued or that the permit conditions are sufficient to protect public health, but are certainly sufficient to alert the Department to the Applicant’s potential existing NAAQS violations. The Applicant stated repeatedly that this consolidation would reduce overall emissions an unspecified amount. *See, e.g., 03-22-21 Applicant Ex. 2, Paul Wade Technical Testimony* at 5. These claims only raise more questions, primarily about how much the already existing AAM operation is emitting. If an “improved” permit that allows for PM 2.5 concentrations at 99.3% of the NAAQS is a reduction in existing pollution levels, how far above the PM 2.5 NAAQS is AAM currently operating? This testimony only further supports the need for NMED to require AAM to monitor actual stack emissions used in their air dispersion modeling.

Instead, the Bureau steadfastly maintained that, because the NAAQS are set at levels that are designed to protect health, community health concerns were covered so long as the operation didn’t exceed the NAAQS. **03-22-21 TR 184: 5-13**. It should be noted that the NAAQS for PM2.5 are being considered to be adjusted to be better protective of public health, meaning that the current standard likely is not sufficient for protecting the health of community. US EPA, *EPA to Reexamine Health Standards for Harmful Soot that Previous Administration Left Unchanged* Accessible here: <https://www.epa.gov/newsreleases/epa-reexamine-health-standards-harmful-soot-previous-administration-left-unchanged> (last viewed Feb. 7, 2022); *see also* US EPA, *Supplement to the 2019 Integrated Science Assessment for Particulate Matter (External Review*

Draft, 2021) Accessible here: <https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=352823> (last viewed Feb. 7, 2022).

This all begs the question, if NMED is willing to go “above and beyond,” in its outreach, why is the Department failing to protect Community by going beyond to ensure any polluting operation does not negatively impact the health and welfare of the nearby community? Other states are already beginning to go beyond what is merely required by permitting regulations in order to better protect community health. Recently, in Michigan, the Michigan Department of Environment, Great Lakes and Energy (“EGLE”) approved an air permit for a proposed asphalt plant with additional restrictions to ensure compliance with the law and better protect the community.⁵ The plant planned to locate in a neighborhood of color “in a neighborhood of social and economic distress.” EGLE Letter to Administrator Michael Regan, US EPA, November 15, 2021, Attached to this Report as Attachment C. Though the EGLE believed that the permit was appropriately issued in accordance with federal and state laws, EGLE believed that its location made the situation unique and subject to greater scrutiny. *Id.* In addition to including permit conditions that removed the company’s ability to burn waste oil, more stringent and frequent testing of stack emissions, enhanced fugitive dust plans and VOC testing requirements, EGLE requested USEPA partner with EGLE to establish a greater understanding of risks from air toxics in Michigan’s environmental justice communities and requested financial assistance from USEPA for the creation and operation of a comprehensive air toxics network that would allow

⁵ I note that the asphalt processing technology proposed by AAM for both of the plants was actually banned by the state of Michigan in the mid-90’s. The use of counterflow drum dryer technology and asphalt load-out emission controls significantly eliminated odor complaints and reduced VOC, Particulate Matter, asphalt fumes and other toxic air pollutant emissions. Submittal of parallel flow asphalt in a MI air permit application would be rejected, according to department staff.

the State of Michigan to assess risks in overburdened communities proximate to clusters of industrial facilities.⁶ EPA first suggested that EGLE study the toxic air contaminants of all sources of stack and fugitive emissions and recommended that, if EGLE determined that the proposed construction of the asphalt plant would cause adverse and disproportionate impacts for nearby residents, the company, EGLE, and local authorities should consider whether construction at an alternative site would avoid the potential for such impacts. EPA also encouraged Ajax and EGLE to engage with the local community to address community concerns that may not be within the scope of the air permit. US EPA, Letter to Mary Ann Dolehanty, Air Quality Division, Michigan Department of Environment, Great Lakes and Energy, Attached to this Report as Attachment D.

The Michigan permitting action not only highlights the limitations of federal and state environmental regulations in addressing concerns raised by residents, but also demonstrates that a state environment department, if willing, can decide to go beyond what is required by law in order to better protect the health and welfare of communities impacted by permitting decisions. Though NMED is currently required to analyze the additive pollution in the area as part of the permitting process, a cumulative impacts analysis would include consideration of various additional factors that impact a community's quality of life. I understand that, in the permitting process, NMED's air dispersion modeling takes into consideration the background concentration of certain pollutants in the area, and pollution coming from neighboring sources surrounding any

⁶ Though the EGLE went beyond merely considering what was required by regulation in the permit application by applying location-based environmental justice considerations to the permitting process, the cumulative risk analysis requested by EGLE is not the same as a cumulative impacts assessment requested by Community here.

applicant's proposed operation,⁷ but environmental justice concerns should also be taken into account in air permitting.

While the AAM application process has revealed the need for a more detailed modeling study of the overall impacts of air pollution for the Airport Road area, a cumulative impacts assessment that takes environmental justice into account is important in this case because the AAM operation is proposed to be permitted in a community that is already heavily populated by industrial facilities and in close proximity to residential housing and community centers and schools, is primarily Hispanic, and ranks in the 75th percentile for at least six of the environmental justice indicators according to the US EPA's EJSCREEN. US EPA has developed an environmental justice mapping and screening tool called EJSCREEN, which uses environmental and demographic indicators in maps to highlight locations across the country that may require additional considerations in permitting to ensure a polluting operation will not disproportionately impact communities already overburdened by negative impacts of air pollution and other environmental justice concerns. See US EPA, Purposes and Uses of EJSCREEN, Accessible here: <https://www.epa.gov/ejscreen/purposes-and-uses-ejscreen> (last viewed Feb. 7, 2022). The tool lets a user compare a community, via a census block group, to the rest of the state by using percentiles.

There are two relevant census block groups in this matter. Block group 350490012031 ("Block Group 1"), which is adjacent to the AAM project site, abutting Highway 599 to the south, extends east to the Caja de Oro Grant, roughly follows the Santa Fe River and terminates

⁷ While the Community recognizes that this is the intention behind the modeling requirements, as explained in my testimony and the other testimony of Community witnesses, both at the original hearing on the permit in March 2021 and in this appeal, the modeling approved by the Bureau is deeply flawed, such that it is almost impossible to know what AAM's expected emissions, and resulting impact on the air quality in the area, will be.

in a point at the junction of the Santa Fe River and Highway 599. Block group 350490012052 (“Block Group 2”) abuts Block group 1 to the north, runs east to Corte Ct., has its southern boundary tracking Agua Fria street, to San Felipe road. These maps are attached to this Report as Attachment E.

According to EJSCREEN, Block Group 2 ranks in the 85th percentile for the PM 2.5 EJ Index compared to the state, meaning that only 15% of New Mexicans face a higher risk of impacts from exposure to fine particulate matter. See EJSCREEN Report, attached to this Report as Attachment F. Block Group 1 is in the 76th percentile compared to the rest of the state, meaning that only 24% of New Mexicans live in a higher risk area. *Id.* Block group 1 is in the 80th percentile or higher for demographic indicators including people of color population, low income, linguistically isolated, and children under the age of five. Block Group 2 is in the 75th percentile or higher for the same indicators, except for under the age of 5. *Id.*

According to EPA, these scores indicate that special attention should be given to these communities in order to ensure they are protected from the additional health and quality of life impacts as a result of pollution exposure because the population of the is disproportionately low income, people of color, and linguistically isolated. NMED should incorporate the use of EPA’s EJSCREEN tool and relevant data into permitting considerations in order to determine whether the impacts of this permit and other permitted operations in the area will negatively impact the health and quality of life of those living nearest the AAM operation. Ideally, NMED should require that any permit applicant, including AAM, should have to demonstrate that it has controlled or eliminated the pollution it produces by considering all alternatives to the manner in

which they operate.⁸ If an industrial operation is proposed to be permitted in an area that meets the relevant EJ criteria, NMED should require an applicant for a permit in an overburdened community to demonstrate that it will not result in a net increase in pollution in the area. This would be consistent with what is being proposed as a cumulative impacts analysis in states like New Jersey.⁹ If the Department is actually concerned with protecting the quality of life of community groups living near permitted operations, the AAM permit should be remanded back to the Department for additional consideration of the cumulative impacts of the operation on the Community. The permit should be remanded back to the Department for a more complete evaluation of the cumulative impacts of air pollution on Santa Fe's South Side that include an assessment of environmental justice impacts of the permitting decision.

- c. If the Board Upholds the Department's Decision to Issue the AAM Permit, Various Permit Conditions can be Improved to be More Protective of Human Health.

The February 4, 2021¹⁰ version of the permit is incomplete and fails to address our concerns regarding the construction and operation of this facility as represented in the permit application. Although this permit is more voluminous than previous permits, that in itself does not justify its issuance as there are voids in the permit language that raise significant doubt about the ability of the permittee to demonstrate on-going compliance.

⁸ Probably the most effective thing this company could do and NMED require would be to modernize the plant by using counterflow-technology and capturing fugitive asphalt processing VOC emissions. These plants are very old. This is where counterflow technology and load out controls can be effective in reducing the Community's toxic air exposure.

⁹ The state of New Jersey is currently undergoing the rulemaking process to ensure cumulative impacts related to environmental justice are taken into consideration in air pollution permitting. See State of New Jersey Department of Environmental Protection Administrative Order No. 2021-25NJ Report, Accessible here: <https://nj.gov/dep/ej/docs/njdep-ao-2021-25-environmental-justice.pdf>, attached to this Report as Attachment G.

¹⁰ It is worth noting that older versions of the draft permit were stronger than the currently issued permit. This is further explained in my March 2021 testimony [03-22-21 Community Ex. 1].

The Department shall, as appropriate, specify conditions upon a permit including the imposition of reasonable restrictions and limitations regarding emissions. 20.2.72.210(B) NMAC. The Department shall also impose reasonable restrictions and limitations other than restrictions relating to emissions limits. The Department may impose such other reasonable conditions upon a permit. 20.2.72.210(C) NMAC. The Department is charged with specifying permit conditions that impose reasonable restrictions and limitations regarding emissions and regarding restrictions not related to emissions. See 20.2.72.210 NMAC.

The purpose of an air quality permit is to establish emission limits and other operational requirements that provide reasonable assurance that the construction and operation of the facility will comply with applicable ambient air quality standards and air quality regulations and protect human health. It provides plant operators a guide to demonstrate on-going compliance. Permit conditions that include an emission limit(s) should be enforceable as a practical manner meaning they should be quantifiable and verifiable by requiring appropriate monitoring, recordkeeping reporting and testing. Failure to include appropriate permit conditions in a permit may result in a facility emitting emissions in quantities that are far greater than those represented by the application or required by applicable rule or regulation. It is imperative that the Department exercise its regulatory authority to the fullest extent especially given how proximate this facility is to the community and how close to exceeding the applicable ambient air quality standards the air dispersion modeling used in this application represented. Furthermore this facility emits asphalt fumes which are a known toxic and include carcinogenic compounds. The National Institute for Occupational Safety and Health cite “inhalation” as an exposure route for asphalt fumes. These fumes are those that you smell and inhale when a tar and gravel or asphaltic roof are being constructed or modified in residential or commercial developments. Those living

adjacent or nearby to this facility will be subject to asphaltic fumes exposure. This permit allows up to 24 hours a day of exposure to this state toxic air pollutant and other pollutants regulated by the Clean Air Act.

Further, EPA has been strengthening enforcement in vulnerable communities, the Office of Enforcement and Compliance and Assurance has intervened to stop pollution in communities four separate times in 2021. *See* US EPA Letter to Sylva Marie Orduno, National Environmental Justice Advisory Council, Oct. 9, 2021, attached to this Report as Attachment H. In fact, EPA is currently conducting a series of enforcement actions, conducting unannounced inspections of polluting sites causing health problems in three Gulf Coast states. Matthew Daly, *EPA Acts to Curb Air, Water Pollution in Poor Communities*, Albuquerque Journal (January 26, 2022) Accessible here: <https://www.abqjournal.com/2464492/epa-acts-on-environmental-justice-in-3-gulf-coast-states.html> (last viewed Feb. 7, 2022). It would behoove the Department to address issues associated with the emitters on Santa Fe's South Side prior to any EPA surprise inspection and ensure the permit in this case is as strong as possible.

As such, I propose a permit condition that includes ongoing monitoring of the emissions coming from the facility in order to ensure community health is protected. In the alternative, I suggest the Board require the Department to perform surprise inspections of the operation as a condition of the permitting because of the razor thin margin for error with where the plant is sitting at 97.2% of the 24-hour PM 2.5 NAAQS and 99.3% of the annual PM 2.5 NAAQS. Much like the Michigan example, the proposed AAM site is in an area with identified air quality concerns in EJSCREEN. In Michigan, because of this, EPA strongly encouraged EGLE to assess the use of opacity cameras and other practically enforceable continuous compliance measures to assure that the proposed asphalt plant was meeting permitted limits and following industry best

practices. I would recommend something similar be imposed by the permit conditions here. See Attachment D, at p. 2.

Because this permit allows for the emission of pollutants known to be harmful to human health and the environment, and because the operation, operating perfectly, would be permitted to emit almost up to the limit of the applicable standard, including the PM 2.5 emissions standard, I propose the following edits to the permit approved by NMED if upheld by the EIB:

1. Permit condition A 101-A is unnecessary and potentially creates a conflict with General Condition B113 (A-C) – This condition should reference General Condition B113 for clarity purposes as this permit condition is more explicit as to the Department’s authority to cancel the permit. The Bureau repeatedly claimed that the February permit must inherently be more protective than the current AAM permit because it is newer and 46 pages longer. This condition demonstrates that this is simply not the case. The length of the permit has no bearing whatsoever on its substance or efficacy. See TR 3/23/2021 460: 24-25; 461:1-8, “The one [permit] for Plant number 5 is only 10 pages long ... The one for hot mix asphalt Plant Number 2 is only two pages long. This new permit is ... 56 pages long, room for 46 new pages of improvements and correction to outdated requirements.”
2. The asphalt fumes ton per year emission limit as written (See permit condition A 106 B) is not enforceable especially for the portion of those emissions that are emitted from each of the asphalt plant stacks. The permit should be amended to include an hourly allowable asphalt fumes limit for P2HMASTK and P5HMASTK along with an initial compliance test to determine if the appropriate emission rate value was used by the applicant in the application to demonstrate that the facility did not require further review of asphalt fumes emissions. The October version of the draft permit included an hourly emission limit for this pollutant. The issued permit states that the facility will demonstrate compliance with the annual asphalt fumes emission rate of 5.0 tons per year by tracking hours (401-A), process rate (401-B), temperature (401-C) and makes a reference to 401-D though the permit is void of any supporting language. The 5.0 tons per year asphalt fumes emission rate is a calculated plant wide rate which has some value for fugitive emissions but is deficient without the inclusion of stack testing for stack emissions. The Department has vaguely suggested that verifying these stack emissions is not possible or beyond their expertise. If that is the case, which I doubt, given that asphalt fumes are carcinogenic and NMED is charged, as the state agency, with ensuring permitted operations do not harm the health of the environment or the people, I respectfully suggest they consult with the USEPA to determine the appropriate stack testing method for verifying the calculus used to render asphalt fume emissions from this facility negligible in the context of further toxic air pollutant analyses. Failure to require further investigation of asphalt fumes emissions by the Department as part of permitting process is putting those who must absorb the brunt of these emissions when the plant is in operation in physical danger.

3. References to calcium hydroxide should be clarified or defined to mean mineral filler as in the previous draft. The hourly emission rate for each of the mineral filler silos should be included in the permit (currently they are combined) and the appropriate stack sampling method should be required in conjunction with the visible emission evaluations required by the permit.
4. Condition A110(B) should define what constitutes commercial pipeline natural gas as the fuel sulfur content because that will, in part, determine the allowable sulfur dioxide emissions contained in the permit. The plant operator should have a clear understanding what pipeline quality gas means.
5. References to EPA method 22 in permit condition A111 should be struck as Method 9 which is also referred in this condition is the appropriate method for determining visible emissions from this source. There is not a reference to method 22 in 20.2.61 NMAC – Smoke and Visible emissions. There also appears to be confusion over the minimum duration for visible emission evaluation as the requirements of 20.2.61 which does state 10' overlap with references to 10' minutes using EPA Method 9. The minimum compliance duration using Method 9 is 6' not 10' as stated in the permit. NMED should clarify this throughout the permit, as necessary. The Department's allowance for the use of Method 22 in many of the permit conditions provides another example of their willingness to accommodate the needs of industry at the expense of the neighboring community.
6. The Department should also include a condition requiring a visible emissions assessment in addition to tracking haul road (see A112) throughputs and control measures to verify, at the very least qualitatively, the validity that the haul road measures are sufficient for controlling emissions. As is, the permit only requires watering and dust suppression measures, which does not determine whether emissions from haul road traffic are adequately suppressed. This would be a case when EPA Method 22 could be used as a screening tool during plant operation by a trained and certified visible emissions reader to determine if control measures have been deployed and effective. The nighttime haul road traffic requirements (See A112 D) at least include an element of qualitative assessment by observing what is taking place. This same principle should be applied during daylight hours. The reasoning as to the Department's reluctance to require this is not clear. Depending on ambient conditions the frequency of nighttime watering may need to be more than once per hour. The language in the permit should be modified to say on an as needed basis but no less than one time per hour. Furthermore, the permit should specify who is responsible for evaluating visible emissions during operations. Absent this recommendation, the Department should explain why the requirement does not apply during daylight hours of operation. The permit estimates a little over 2 tons (4000 lbs.) per year of dust from truck emissions yet 595 daily truck trips are allowed. Essentially, no visible emissions should be observed. The margin for error is so thin to not require periodic haul road visible emissions assessments given the small quantity of emissions calculated for each truck trip.
7. The permit should require that a certified EPA Method 9 evaluator be present during all times the plant is in operation. Otherwise, no one is accountable and on-going compliance

cannot be verified. Reliance on someone who may not be trained (ideally certified) to evaluate visible emissions from this facility would significantly weaken the enforceability of this permit. See US EPA Method 22-Visual Determination of Fugitive Emissions, Accessible here: <https://www.epa.gov/emc/method-22-visual-determination-fugitive-emissions> (last viewed Feb. 7, 2022).

8. A302 B should revert to the October language which required the installation of a weigh belt and data logger to track the rock crushing and screening throughputs. The revised language lends itself to human error and will require more effort by NMED to verify compliance with this requirement by the permittee. Furthermore, material variability over the course of the day could impact actual tons processed per hour and day. Using modern technology in the 21 century should not be too big of an ask of the Department and permittee.
9. References to “minimize” emissions should be struck from the whole permit. It is unenforceable and conflicts with “meet the emission limitations contained in the permit.” “Control” or “meet the opacity limitations” as appropriate should be substituted for “minimize” which is found ten (10) times in the permit. Curiously, the Department approved a razor thin demonstration of compliance with ambient air quality standards yet issued a permit that requires the permittee to “minimize” but not “control” emissions in some instances.
10. Permit condition A303 A1 should include meet the *opacity* limitations contained in section A305 of this permit.
11. Wet dust suppression system (A303 A), Fugitive dust control plans (A303 B) should all be defined in the permit and reviewed prior to permit issuance. The Department historically has been reluctant to be too prescriptive or mandate specific fugitive dust controls. Nonetheless, probing into this matter given the concerns about ambient air quality standards and proximity to an overburdened community is reasonable. During paving season, anyone with basic air quality knowledge should be concerned about what they see in terms of particulate air pollution emissions from the Airport road aggregate and asphaltic plant complex.
12. A401 A3 should require a visible emissions (visible emissions) evaluation of each asphalt plant prior to nighttime operations. A six minute VE value greater than 10% opacity would be cause for not allowing nighttime operations until the appropriate repair or maintenance on the facility occurred. Although 40 CFR Part 60 Subpart I – Standards of Performance for Hot Mix Asphalt Facilities allows 20 percent opacity, my experience observing stack tests suggests that observed opacity greater than 10 percent usually means that complying with the emission standard of 0.04 grains/dry standard cubic foot is in jeopardy. More simply, the Department’s requirement of just having the control system being operational fails to objectively define how well emissions are being controlled. A six (6) minute observation by a trained and certified emissions evaluator brings clarity to this potential mystery.

13. How the records required by A401 B are generated should be stated in the permit. Specifically, these records should be in a format that facilitate an expedient compilation and review of a resource constrained agency.
14. A402 A should be amended to limit the maximum drum dryer exit stack temperature to 325 degrees Fahrenheit as stated in the permit application. The monitoring section should be amended to say anytime the plant is in operation (not just during nighttime operations) and add the appropriate language to monitor temperature.
15. A402 B should revert to the language found in the October draft permit.
16. The reference to A402 E “volume settings” needs to be defined.
17. October mineral filler related language A403 A&B is better and should be reinstated.
18. The permit should require maintenance to control blue smoke emissions during asphalt processing, conveying and silo dumping as required by many other states. Appropriate emission controls for asphalt liquid storage tanks should be required.
19. A402 A Recordkeeping 4 states “the permittee shall maintain records of each visual opacity check(s)” yet A402 A Monitoring does not include any “visual opacity checks”. Those checks should be added to the permit as opacity is a surrogate to compliance with the emission limits stated in 40 CFR Part 60 Subpart I – Standards of Performance Hot Mix Asphalt Plants
20. A402 C1 Monitoring is vague and incomplete in regard to the frequency and duration of Method 9 opacity tests required.
21. NMED, the Community and the Applicant should have quarterly meetings to engage with the local community to address community concerns related to environmental justice that may not be within the scope of the air permit itself.¹¹

4. Materials Reviewed

In addition to the March 2021 Hearing Record, I reviewed the following documents:

- Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government, Executive Order 13985 (January 20, 2021), Attachment B.
- Letter from Michigan Department of Environment, Great Lakes and Energy to EPA Administrator (Nov. 15, 2021), Attachment C

¹¹ This is likely within the scope of NMED’s authority and would be encouraged by US EPA, as it is what EPA has recommended in Michigan.

- EPA Letter to Air Quality Division of Environment, Great Lakes and Energy (Sept. 16, 2021), Attachment D
- EJSCREEN Census Block Map, Attachment E
- EJSCREEN Report, Attachment F
- State of New Jersey Department of Environmental Protection Administrative Order No. 2021-25NJ Report, Attachment G
- US EPA Letter to National Environmental Justice Advisory Chair, 100 Day Letter (Oct. 9, 2021), Attachment H
- Michigan Department of Environment, Great Lakes and Energy Air Quality Division Permit to Install 90-21, Issued to Ajax Materials Corporation (Nov. 15, 2021), Attachment I
- US EPA, *EPA Administrator Announces Agency Actions to Advance Environmental Justice* (April 7, 2021) Accessible here: <https://www.epa.gov/newsreleases/epa-administrator-announces-agency-actions-advance-environmental-justice>
- US EPA, EJ 2020 Glossary, Accessible here: <https://www.epa.gov/environmentaljustice/ej-2020-glossary>

5. Conclusion

The Environmental Improvement Board should reverse the decision of the New Mexico Environment Department to issue Permit No. 8585 to Associated Asphalt and Materials because the Department ignored its own guidance and cannot reasonably say the AAM operation will comply with applicable air quality standards. Further, because this operation is sited near communities with high Environmental Justice index scores according to EJSCREEN, the Department should be required to analyze how this facility might negatively impact the quality of life of nearby residents and take that into consideration in air permitting. Lastly, if the EIB decides to uphold NMED's decision to issue Permit No. 8585, the permit should be modified to include stricter conditions that ensure the AAM operation will operate in compliance with all applicable standards.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.

Signed on this 8th day of February, 2022.

/s/ Michael Schneider

Michael Schneider, Environmental Scientist

Michael Schneider
 3006 Warrensville Center Rd.
 Shaker Heights, Ohio 44122
 505-389-6229
 Mikeschneider7@hotmail.com

SUMMARY OF SKILLS

- Experienced air quality professional
- Effectively problem solves and collaborates with stakeholders
- Technical, regulatory and program development

QUALIFICATIONS

Program Development

- As part of an integrated and collaborative team evaluating the Clean Power Plan, I reviewed and analyzed the proposed and final CPP rule, provided content and data for policy makers and public outreach documents, identified likely affected sources, proposed possible state compliance plans, facilitated and led committee meetings discussing compliance options and affected sources, participated in numerous webinars and meetings regarding the rule and analyzed potential impacts to consumers, regulated entities and New Mexico's economy.
- As a private consultant to Energy Strategies LLC Salt Lake City, Utah, I reviewed and analyzed EPA's Energy Efficiency and Renewable Energy Road Map and made recommendations as to how the State of Utah could incorporate this program into their PM 2.5 State Implementation Plan. Compiled and analyzed electric utility generation and emissions data from the National Emissions Inventory and the Clean Air Markets Database for sources contributing to the PM 2.5 nonattainment area. Provided content for project white paper and presented summary of EE/RE key considerations for implementation into the Utah SIP for the project kickoff meeting.
- Obtained an EPA grant to modify New Mexico's Emissions Inventory program from a spreadsheet manual based data entry approach to an online reporting tool resulting in higher quality data received in compliance with regulatory requirements. Developed tools for data quality control and data analysis, and created a GIS based Emissions Analysis Tool which allows stakeholders to consume the data in a meaningful manner. Emissions data can be analyzed by source, sector, county pollutant and year.
- Implemented NMED's GHG emissions reporting rule by developing reporting procedures and calculation methodologies, and conducting outreach to facilitate regulatory understanding and timely compliance. Analyzed data and authored a report that discusses trends and opportunities for emission reductions. Presented finding and conclusions to internal and external stakeholders.
- Project team lead responsible for organizing and coordinating the update of New Mexico's economy-wide top-down GHG emissions inventory (2007, 2010 & 2013) which evaluates emissions on a consumption and per capita basis. This project required the review and analysis of data inputs from the Energy Information Administration and New Mexico Bureau of Business and Economic Research to complete emission estimates for the electricity, fossil fuel production, transportation, residential, commercial and institutional sectors. Similar research and consultation with experts was necessary to update the emissions from the industrial, agricultural and waste sectors. A report was generated for each update which provides a discussion of New Mexico's emissions by sector and uses numerous charts to depict emission trends and analysis. Each report was presented to internal and external stakeholders.
- Participated in the Central New Mexico Climate Change Scenario Planning Project which assessed the cost and benefits of a series of growth scenarios to determine how best to manage congestion, reduce emissions, and adapt to the impacts of climate change.
- Organized and facilitated 11-week Climate Master class in 2011. Collaborated with expert speakers to provide meaningful and inspiring course content to motivate class participants to adopt climate benefiting behaviors individually and collectively. Speakers included climate,

energy and water conservation, green marketing, and alternative transportation experts.

- Collaborated with EPA, state regulators, industry trade and environmental groups to develop the Western Regional Air Partnership Oil and Gas GHG emissions reporting protocol in anticipation of a western carbon trading program. Recommendations from this effort were submitted to EPA for consideration in developing 40 CFR Part 98 Subpart W.
- Provided expert testimony regarding GHG emissions inventory results in support of state climate change rule development. Testimony presented to the New Mexico Environmental Improvement Board included comparative equivalency statistics, scope of rule coverage, and distribution of emissions by county, industrial sector and owner.

Technical

- Reviewed and processed hundreds of air quality permit applications including oil and gas well-head sites, mineral processing, asphalt processing, natural gas processing plants, refineries, food processing and electric generating facilities. Completed source applicability determinations of federal and state air quality regulations and documented those determinations in the statement of basis for each permitting action. Wrote enforceable permit conditions to ensure ambient air quality standards were met.
- Provided expert testimony and processed PSD air permit applications including top-down BACT analyses to determine cost-effectiveness of emission control options.
- Chaired WESTAR Sources Committee and presented at regional and national technical air conferences.
- Utilized Excel to create meaningful graphs and charts that convert emissions data into information.
- Experience extracting and analyzing data from the Energy Information Administration and EPA's Flight, Envirofacts, National Emissions Inventory, CAMD and eGRID databases.

Regulatory

- Provided Clean Air Act (CAA) training to coworkers by mentoring and providing presentations
- Explained complex regulatory requirements in a manner that was consumable to stakeholders.
- Provided regulatory and technical comments on proposed CAA rule(s) (e.g., NSR Reform & Clean Power Plan).
- Investigated complaints, conducted inspections, provided compliance assistance and drafted Notice of Violation(s) and Consent Agreement(s).

Papers and Presentations

- Compilation and Analysis of New Mexico's GHG Emissions, 2013 Energy Utility Environment Conference, Phoenix, AZ
- Permitting and Planning Issues Related to Four Corners Development, National Association of Clean Air Agencies, February 2007 Permitting Workshop, Phoenix, AZ
- Permitting and Planning Issues Related to Four Corners Development, May 2007 Navajo Nation Environmental Conference, Window Rock Arizona
- Inventory of New Mexico Greenhouse Gas Emissions 2000 – 2007 March 15, 2010
- Inventory of New Mexico Greenhouse Gas Emissions 2000 – 2010 May 13, 2016
- Inventory of New Mexico Greenhouse Gas Emissions 2000 – 2007 October 1, 2016

EXPERIENCE

| | |
|---------------|--|
| 02/93 – 01/17 | <i>Environmental Scientist</i> , New Mexico Environment Department, Santa Fe, New Mexico |
| 12/13 – 04/14 | <i>Contractor</i> for Energy Strategies Salt Lake City, Utah |
| 04/89 – 04/91 | <i>Sales Representative</i> , Kraft General Foods, Indianapolis, Indiana |

EDUCATION

B.S. Agricultural Economics, Ohio State University, 1989

Community EIB Ex. 12, Report Attachment B

BRIEFING ROOM

Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

JANUARY 20, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered:

Section 1. Policy. Equal opportunity is the bedrock of American democracy, and our diversity is one of our country's greatest strengths. But for too many, the American Dream remains out of reach. Entrenched disparities in our laws and public policies, and in our public and private institutions, have often denied that equal opportunity to individuals and communities. Our country faces converging economic, health, and climate crises that have exposed and exacerbated inequities, while a historic movement for justice has highlighted the unbearable human costs of systemic racism. Our Nation deserves an ambitious whole-of-government equity agenda that matches the scale of the opportunities and challenges that we face.

It is therefore the policy of my Administration that the Federal Government should pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. Affirmatively advancing equity, civil rights, racial justice, and equal opportunity is the responsibility of the whole of our Government. Because advancing equity requires a systematic approach to embedding fairness in decision-making processes, executive departments and agencies (agencies) must recognize and work to redress inequities in their policies and programs that serve as barriers to equal opportunity.

By advancing equity across the Federal Government, we can create opportunities for the improvement of communities that have been historically underserved, which benefits everyone. For example, an analysis shows that closing racial gaps in wages, housing credit, lending opportunities, and access to higher education would amount to an additional \$5 trillion in gross domestic product in the American economy over the next 5 years. The Federal Government's goal in advancing equity is to provide everyone with the opportunity to reach their full potential. Consistent with these aims, each agency must assess whether, and to what

extent, its programs and policies perpetuate systemic barriers to opportunities and benefits for people of color and other underserved groups. Such assessments will better equip agencies to develop policies and programs that deliver resources and benefits equitably to all.

Sec. 2. Definitions. For purposes of this order: (a) The term “equity” means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

(b) The term “underserved communities” refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, as exemplified by the list in the preceding definition of “equity.”

Sec. 3. Role of the Domestic Policy Council. The role of the White House Domestic Policy Council (DPC) is to coordinate the formulation and implementation of my Administration’s domestic policy objectives. Consistent with this role, the DPC will coordinate efforts to embed equity principles, policies, and approaches across the Federal Government. This will include efforts to remove systemic barriers to and provide equal access to opportunities and benefits, identify communities the Federal Government has underserved, and develop policies designed to advance equity for those communities. The DPC-led interagency process will ensure that these efforts are made in coordination with the directors of the National Security Council and the National Economic Council.

Sec. 4. Identifying Methods to Assess Equity. (a) The Director of the Office of Management and Budget (OMB) shall, in partnership with the heads of agencies, study methods for assessing whether agency policies and actions create or exacerbate barriers to full and equal participation by all eligible individuals. The study should aim to identify the best methods, consistent with applicable law, to assist agencies in assessing equity with respect to race, ethnicity, religion, income, geography, gender identity, sexual orientation, and disability.

(b) As part of this study, the Director of OMB shall consider whether to recommend that agencies employ pilot programs to test model assessment tools and assist agencies in doing so.

(c) Within 6 months of the date of this order, the Director of OMB shall deliver a report to the President describing the best practices identified by the study and, as appropriate,

recommending approaches to expand use of those methods across the Federal Government.

Sec. 5. Conducting an Equity Assessment in Federal Agencies. The head of each agency, or designee, shall, in consultation with the Director of OMB, select certain of the agency's programs and policies for a review that will assess whether underserved communities and their members face systemic barriers in accessing benefits and opportunities available pursuant to those policies and programs. The head of each agency, or designee, shall conduct such review and within 200 days of the date of this order provide a report to the Assistant to the President for Domestic Policy (APDP) reflecting findings on the following:

- (a) Potential barriers that underserved communities and individuals may face to enrollment in and access to benefits and services in Federal programs;
- (b) Potential barriers that underserved communities and individuals may face in taking advantage of agency procurement and contracting opportunities;
- (c) Whether new policies, regulations, or guidance documents may be necessary to advance equity in agency actions and programs; and
- (d) The operational status and level of institutional resources available to offices or divisions within the agency that are responsible for advancing civil rights or whose mandates specifically include serving underrepresented or disadvantaged communities.

Sec. 6. Allocating Federal Resources to Advance Fairness and Opportunity. The Federal Government should, consistent with applicable law, allocate resources to address the historic failure to invest sufficiently, justly, and equally in underserved communities, as well as individuals from those communities. To this end:

- (a) The Director of OMB shall identify opportunities to promote equity in the budget that the President submits to the Congress.
- (b) The Director of OMB shall, in coordination with the heads of agencies, study strategies, consistent with applicable law, for allocating Federal resources in a manner that increases investment in underserved communities, as well as individuals from those communities. The Director of OMB shall report the findings of this study to the President.

Sec. 7. Promoting Equitable Delivery of Government Benefits and Equitable Opportunities. Government programs are designed to serve all eligible individuals. And Government contracting and procurement opportunities should be available on an equal basis

to all eligible providers of goods and services. To meet these objectives and to enhance compliance with existing civil rights laws:

(a) Within 1 year of the date of this order, the head of each agency shall consult with the APDP and the Director of OMB to produce a plan for addressing:

(i) any barriers to full and equal participation in programs identified pursuant to section 5(a) of this order; and

(ii) any barriers to full and equal participation in agency procurement and contracting opportunities identified pursuant to section 5(b) of this order.

(b) The Administrator of the U.S. Digital Service, the United States Chief Technology Officer, the Chief Information Officer of the United States, and the heads of other agencies, or their designees, shall take necessary actions, consistent with applicable law, to support agencies in developing such plans.

Sec. 8. Engagement with Members of Underserved Communities. In carrying out this order, agencies shall consult with members of communities that have been historically underrepresented in the Federal Government and underserved by, or subject to discrimination in, Federal policies and programs. The head of each agency shall evaluate opportunities, consistent with applicable law, to increase coordination, communication, and engagement with community-based organizations and civil rights organizations.

Sec. 9. Establishing an Equitable Data Working Group. Many Federal datasets are not disaggregated by race, ethnicity, gender, disability, income, veteran status, or other key demographic variables. This lack of data has cascading effects and impedes efforts to measure and advance equity. A first step to promoting equity in Government action is to gather the data necessary to inform that effort.

(a) Establishment. There is hereby established an Interagency Working Group on Equitable Data (Data Working Group).

(b) Membership.

(i) The Chief Statistician of the United States and the United States Chief Technology Officer shall serve as Co-Chairs of the Data Working Group and coordinate its work. The Data Working Group shall include representatives of agencies as determined by the Co-Chairs to be necessary to complete the work of the Data Working Group, but at a minimum shall include the following officials, or their designees:

- (A) the Director of OMB;
 - (B) the Secretary of Commerce, through the Director of the U.S. Census Bureau;
 - (C) the Chair of the Council of Economic Advisers;
 - (D) the Chief Information Officer of the United States;
 - (E) the Secretary of the Treasury, through the Assistant Secretary of the Treasury for Tax Policy;
 - (F) the Chief Data Scientist of the United States; and
 - (G) the Administrator of the U.S. Digital Service.
- (ii) The DPC shall work closely with the Co-Chairs of the Data Working Group and assist in the Data Working Group's interagency coordination functions.
- (iii) The Data Working Group shall consult with agencies to facilitate the sharing of information and best practices, consistent with applicable law.
- (c) Functions. The Data Working Group shall:
- (i) through consultation with agencies, study and provide recommendations to the APDP identifying inadequacies in existing Federal data collection programs, policies, and infrastructure across agencies, and strategies for addressing any deficiencies identified; and
 - (ii) support agencies in implementing actions, consistent with applicable law and privacy interests, that expand and refine the data available to the Federal Government to measure equity and capture the diversity of the American people.
- (d) OMB shall provide administrative support for the Data Working Group, consistent with applicable law.

Sec. 10. Revocation. (a) Executive Order 13950 of September 22, 2020 (Combating Race and Sex Stereotyping), is hereby revoked.

(b) The heads of agencies covered by Executive Order 13950 shall review and identify proposed and existing agency actions related to or arising from Executive Order 13950. The head of each agency shall, within 60 days of the date of this order, consider suspending, revising, or rescinding any such actions, including all agency actions to terminate or restrict

contracts or grants pursuant to Executive Order 13950, as appropriate and consistent with applicable law.

(c) Executive Order 13958 of November 2, 2020 (Establishing the President's Advisory 1776 Commission), is hereby revoked.

Sec. 11. General Provisions. (a) Nothing in this order shall be construed to impair or otherwise affect:

- (i) the authority granted by law to an executive department or agency, or the head thereof; or
 - (ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.
- (b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.
- (c) Independent agencies are strongly encouraged to comply with the provisions of this order.
- (d) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

JOSEPH R. BIDEN JR.

THE WHITE HOUSE,
January 20, 2021.



GRETCHEN WHITMER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
LANSING



LIESL EICHLER CLARK
DIRECTOR

November 15, 2021

VIA EMAIL

Mr. Michael S. Regan, Administrator
United States Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW (1101A)
Washington, DC 20460

Dear Administrator Regan:

Today the Michigan Department of Environment, Great Lakes, and Energy (EGLE) issued a minor source permit under the federal Clean Air Act to Ajax Materials Corporation (Ajax) for the construction of a new hot-mix asphalt plant.

The Ajax plant will be located in Genesee Township, directly on its border with the city of Flint and adjacent to a majority Black neighborhood where residents have long lived in the shadow of industrial facilities. As recent public comments in response to the asphalt plant's permit application show, Flint residents again expressed deep frustration with the addition of another industrial facility in close proximity to their homes, schools, parks, and other community institutions.

EGLE takes its responsibility for administering the Clean Air Act seriously. We also share your commitment to ensuring environmental justice principles are applied in all agency actions. Since its first days in office, the Governor Gretchen Whitmer Administration has taken steps to live that commitment. Its many actions include:

- Creating the Office of the Environmental Justice Public Advocate and the Office of the Clean Water Public Advocate in early 2019;
- Forming the multiagency internal Environmental Justice Response Team and the external stakeholder Michigan Advisory Council on Environmental Justice to guide and advise the State of Michigan's work to advance environmental justice;
- Hosting the first Michigan Environmental Justice Conference earlier this year, which has brought varied expertise and perspectives from across the country to our environmental justice work;
- Developing the soon-to-be-released Michigan-specific Environmental Justice Screening Tool; and

- Making marked improvements in how we communicate with and engage our fellow Michiganders who live in environmental justice communities.

Despite the significant progress EGLE continues to make in expanding the environmental justice dialog and integrating environmental justice principles into its daily actions, the permit action taken today highlights the limitations of federal and state environmental regulations in addressing the concerns raised by Flint residents.

To be clear, EGLE believes the Ajax permit was appropriately issued in accordance with federal and state laws. As the permit was developed, EGLE consulted with the Michigan Department of Attorney General (MDAG) and other legal experts, other states that have faced similar situations, and United States Environmental Protection Agency (USEPA) staff. The applicant has been quick to remind EGLE that many of the conditions added to the permit following the public participation process go beyond what is normally included in permits for similar facilities. EGLE has been clear with the applicant that while the facility may be similar to others in the state, its location makes it unique and subject to greater scrutiny.

In addition to the ultimate content of the permit, many of the actions EGLE took in developing this permit were unprecedented. The duration of the public participation period was 83 days—longer than any other EGLE public comment period for a minor source permit. While navigating public health and safety concerns related to the pandemic, EGLE held multiple community events to provide residents opportunities to become informed about the application and provide comments. This included participating in an outdoor, in-person option at one hearing for those who felt strongly that a physical gathering was necessary to ensure community members were heard.

While applying federal and state laws to the letter—according to our department's longstanding practice and consistently validated precedent—EGLE broke new ground on this permit in the extent to which we applied location-based environmental justice considerations to the process. In addition to our standard high level of attentiveness to public comment, including those offered by the USEPA Region 5, we were more proactive in our engagement with the community and use of our legal authority in this matter than we have been for any minor source permit in institutional memory.

EGLE will build from this experience and seek continued improvement in how we engage impacted communities in similar future situations. However, if the deep community concerns expressed in response to the Ajax permit application can be addressed more fully under the Clean Air Act, EGLE needs the USEPA's assistance.

Specifically, we request that the USEPA:

1. **Conduct a review of the Ajax permit** – EGLE invites the USEPA to conduct an additional review of the Ajax permit. Some of the comments submitted by the USEPA on the draft permit included a clear nexus to applicable federal

requirements. As a result, EGLE was able to modify the draft permit accordingly. However, some USEPA comments were unclear as to how specific federal laws and regulations apply. If the USEPA believes that the permit does not fully comply with all requirements established in federal law, EGLE requests that the USEPA meet with the permittee and with EGLE to identify any specific change that should be made to the permit.

2. **Enhance EGLE's ability to evaluate air toxics concerns** – EGLE requests the USEPA partner with EGLE to establish a greater understanding of risks from air toxics in Michigan's environmental justice communities. EGLE requests financial assistance from the USEPA for creation and operation of a comprehensive air toxics network that will allow the State of Michigan to assess risks in overburdened communities proximate to clusters of industrial facilities. EGLE also requests that the USEPA provide technical expertise to help design the network, properly site monitors, evaluate data collected, and conduct broader scientific evaluations to correlate monitored levels of toxic pollutants with other relevant existing data (e.g., traffic data).
3. **Provide additional clarity to the States on implementing federal standards in environmental justice communities** – EGLE asks the USEPA to call a summit of state and federal leaders to discuss these policies, including the challenges and opportunities related to addressing cumulative risks. Capitalizing on input from the States as the primary agencies implementing the nation's environmental programs, this summit should be structured to catalyze a comprehensive evaluation of the effectiveness of federal laws and regulations in protecting overburdened communities. To provide the basis for that conversation, EGLE requests that the USEPA provide written guidance to the States as soon as possible, defining how the States should specifically be addressing environmental justice considerations in permitting and enforcement procedures. Among other purposes, this guidance is necessary to ensure consistency across the nation in implementation of federal regulations.

EGLE is grateful to the USEPA for your partnership in pursuing our shared commitment to environmental justice. We look forward to collaborating with you to provide overburdened populations and the business community greater clarity and predictability in how environmental justice principles will be applied in the important regulatory decisions we make every day.

Sincerely,



Liesl Eichler Clark
Director
517-284-6712

cc: Ms. Debra Shore, Regional Administrator, USEPA, Region 5
Ms. Patricia Readinger, Governor's Washington Office
Ms. Kara Cook, Governor's Office
Mr. Robert Reichel, MDAG
Mr. Aaron B. Keatley, Chief Deputy Director, EGLE
Ms. Amy Epkey, Senior Deputy Director, EGLE
Mr. James Clift, Deputy Director, EGLE
Ms. Regina Strong, Environmental Justice Public Advocate, EGLE
Ms. Mary Ann Dolehanty, EGLE



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

Mary Ann Dolehanty
Air Quality Division
Michigan Department of
Environment, Great Lakes and Energy
535 West Allegan Street
P.O. Box 30473
Lansing, Michigan 48909-7973

Dear Ms. Dolehanty:

This letter is in regard to Michigan Department of Environment, Great Lakes and Energy's (EGLE's) draft Permit to Install (PTI) for Ajax Materials Corporation (Ajax) – PTI Application No. 2021-0019. The PTI would allow Ajax to install and operate a new hot mix asphalt plant at 5088 Energy Drive in Genesee Township, near the Flint border. Ajax intends to accept permit limits to ensure that emissions from the proposed facility would not exceed the major source threshold. The U.S. Environmental Protection Agency (EPA) has reviewed the draft PTI and associated permit files.

EPA is committed to advancing environmental justice and incorporating equity considerations into all aspects of our work. This commitment includes improving our assessment and consideration of the impacts of permits on communities already overburdened by pollution. As described below in more detail, we appreciate that EGLE shares this commitment and has taken steps to mitigate potential impacts from the proposed facility.

The neighborhood around the proposed asphalt plant has some of the highest levels in the State of Michigan for many pollution indicators used by EPA's environmental justice screening tool, EJSCREEN. EJSCREEN is a mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. It is a useful first step in understanding or highlighting locations that may have environmental justice concerns.

Like EPA, EGLE recognizes the challenges faced by this community. The Environmental Justice Index for eight of the eleven EJSCREEN indicators in the one-mile area around the proposed Ajax site exceeds the 90th percentile in the State of Michigan, including indices for

particulate matter of less than 2.5 microns in diameter, ozone, air toxics cancer risk, respiratory hazard, lead paint, Superfund proximity, hazardous waste, and wastewater discharge. The population of the people who live in the area around the proposed asphalt plant is disproportionately low income, people of color, and includes persons with limited English proficiency. The proposed Ajax site is in an area that is already heavily populated by industrial facilities along Dort highway and is in close proximity to residential housing and community centers.

EPA acknowledges the work EGLE has already undertaken on this permitting action, work that may go beyond what is usually required in Michigan for issuing a minor source air pollution control construction permit. EGLE required the applicant to conduct dispersion modeling for multiple air pollutants, including toxic cancer-causing compounds, to assess the potential impacts of this air pollution permit. EGLE has provided an extended opportunity for public comment, held both a virtual information session and hearings, and an in-person comment session, as part of its enhanced public outreach efforts to the community. EGLE also accepted comments via regular mail, voicemail, email, and in-person.

Our concerns, comments, and recommendations are included in the attachment to this letter. We highlight a few key comments here. First, because the proposed site for the Ajax facility is in an area with identified air quality concerns in EJSCREEN, EPA recommends a cumulative analysis of the projected emissions from all emission units at the proposed facility, fugitive emissions from the proposed facility, and emissions from nearby industrial facilities, to provide a more complete assessment of the ambient air impacts of the proposed facility on this community. Next we strongly encourage EGLE to assess the use of opacity cameras and other practically enforceable continuous compliance measures to assure that Ajax is meeting its permitted limits and following industry best practices. We also recommend that if the proposed asphalt plant is permitted, data regularly generated by Ajax to comply with the permit be made publicly available on an easily accessible website. The transparency of such data will promote public engagement and help build trust among all stakeholders.

Finally, because of the environmental conditions already facing this community, and the potential for disproportionate impacts, the siting of this facility may raise civil rights concerns, so it is important that EGLE assess its obligations under civil rights laws and policies. We understand that EGLE requested Ajax to consider alternative sites for this asphalt plant, but that the company declined to do so. Any of the additional analyses EPA is recommending may provide additional information in support of EGLE's evaluation of whether the proposed construction will cause adverse and disproportionate impacts for nearby residents. If so, we encourage the company, EGLE, and local authorities to consider again whether construction at an alternative site would avoid the potential for such impacts. We further encourage Ajax and EGLE to engage with the local community to address community concerns that may not be within the scope of the air permit.

Thank you again for the opportunity to work with you on this draft permit. EPA remains committed to working together with EGLE to address our shared environmental priorities,

advance equity, and reduce potential environmental and health impacts on communities such as this one.

Sincerely,

Cheryl L. Newton
Acting Regional Administrator

Enclosures

Detailed Permit Comments
Ajax Materials Corporation
PTI APP-2021-0019

EPA has reviewed the draft PTI and associated permit files, including the technical fact sheet and permit application materials made available by EGLE during the public comment period, and has the following comments and recommendations:

1. We recommend that you evaluate whether additional nearby stationary sources and fugitive sources from the proposed facility should be included as part of the air quality modeling EGLE has required for this permit. The cumulative impacts analysis only considered the impacts associated with the proposed project. Neither nearby sources nor fugitives from the proposed facility were included in the modeling. We observe that Ajax is proposing to construct in an area where other stationary sources are already located and may be impacting the local community. Additionally, the toxic air contaminant (TAC) modeling does not consider all sources of stack and fugitive emissions. We recommend this analysis include an assessment of whether the source-wide TAC emissions from both fugitive and non-fugitive sources exceed EGLE's initial threshold screening level (ITSL) or initial risk screening level (IRSL).
2. 40 CFR 60.92(a)(2) establishes an opacity requirement applicable to each hot mix asphalt facility. This opacity requirement does not appear within the draft permit. EGLE should include the necessary opacity limit in the permit and incorporate opacity testing requirements consistent with 40 CFR 60.93. To ensure ongoing compliance and practical enforceability of this limit, EGLE should also establish a periodic (at least quarterly) opacity testing requirement applicable to the affected facility.
3. EUHMAPLANT Special Condition (SC) V.2 – V.4 lists the general test methods Ajax is to use to ensure compliance with the applicable permit conditions. The current draft permit only contains general citations to the appendices containing relevant test methods for Parts 60, 61, and 63. We recommend that EGLE specify in the permit the particular test method protocols for each pollutant that Ajax will be using to ensure compliance once the facility is constructed and operating. The permit can include a provision that requires EGLE approval of the test plan submitted by the permittee prior to testing, but approval of modifications to EPA test methods, as found in the appendices to Parts 60, 61, and 63, can only be done by EPA. EPA is available to assist EGLE in determining the appropriate test methods for each pollutant in order for Ajax to ensure compliance with the permit limit conditions.
4. EUHMAPLANT SC V.5 requires particulate matter testing pursuant to 40 CFR Part 60 Subparts A and I. Although this condition incorporates the testing required by the federal requirement, permit condition SC V.5 does not require periodic testing to determine compliance with the particulate matter emission limit in 40 CFR 60.92. To ensure ongoing compliance with the emission limit and improve enforceability of the NSPS Subpart I PM limit, we request that the permit include periodic PM testing performed according to the procedures included within 40 CFR 60.93.

5. FGFACILITY SC I.3 and I.4 contains facility-wide general limits on hazardous air pollutants (HAPs) for individual and aggregate HAPs of less than 8.9 and 22.5 tons per year, respectively, on a 12-month rolling average. The monitoring and recordkeeping requirements for these conditions (FGFACILITY SC VI.2) only state that the permittee is required to use emission calculation records to ensure compliance with the limits. We request the permit specify the methodology Ajax will use to demonstrate compliance with the HAP limits, and that the permit record include an explanation of how this methodology will ensure that HAP emissions remain below the major source threshold.
6. EUHMAPLANT SC V.1 and V.2 requires the permittee to verify via stack testing carbon monoxide (CO) and toxic air pollutant emissions upon EGLE's request. This condition does not require periodic testing to determine compliance with the hourly CO emission limit established in SC I.8, nor does it require periodic testing to determine compliance with the air toxics emission limits established in SCs I.14 through I.25. We request that you require periodic testing to determine compliance with the emission limits in SCs I.8 and I.15 through I.25. Periodic testing would help ensure that the source is complying with its CO and air toxics emission limits, which improves the practical enforceability of each limit and further ensures that the local community is not subjected to emissions exceeding the corresponding limit.
7. EUHMAPLANT SC V.3 requires a one-time test to verify PM₁₀, PM_{2.5}, NO_x, and lead emissions from the plant. EUHMAPLANT SC V.4 is a similar requirement that applies when the source combusts recycled used oil (RUO) and includes testing for SO₂ emissions. It is not clear whether a one-time test ensures that each emission limit is enforceable as a practical matter, however, as it is unclear whether emissions vary over time or with the type of asphalt being produced or fuel being combusted, suggesting that periodic testing may be appropriate to ensure ongoing compliance with each limit. We request that you revise SC V.3 and V.4 to require periodic testing to better ensure that the PM₁₀, PM_{2.5}, NO_x, lead, and SO₂ emission limits are enforceable as a practical matter. For any pollutant where EGLE determines one-time testing is sufficient, we request that EGLE provide justification as part of the permit record.
8. EUYARD SC I.2 restricts all visible emissions from the pile when winds are below 12 miles per hour (mph) and limits opacity to 20% when winds exceed 12 mph. Since the modeling analysis relies on a windspeed threshold that exceeds approximately 11.50 mph,¹ we recommend that you revise this condition to apply to winds that are below 11.50 mph. Also, the draft permit does not require the permittee to perform periodic visible emissions monitoring when winds are below 12 mph nor to quantify opacity when winds are at least 12 mph. To ensure ongoing compliance with the visible emissions requirements and to ensure practical enforceability of the opacity limit, we request that you incorporate periodic visible emissions monitoring and periodic opacity monitoring to evaluate and quantify fugitive dust emissions.
9. The fugitive dust control plan in Appendix A requires the permittee to maintain piles to prevent fugitive dust consistent with EUYARD SC I.1 (see Appendix A, condition 7.b). As

¹ 5.14 m/s \approx 11.50 mph.

written, it is unclear what fugitive dust control measures will be implemented to prevent fugitive dust emissions from the pile. EUYARD SC I.1 appears to apply to all roads and unpaved travel surfaces, not the piles. To ensure the enforceability of the fugitive dust control plan and SC III.1, we request that you specify the measures that will be employed to control fugitive dust from the mineral aggregate piles. We request that you require each material storage pile to be covered or enclosed to mitigate potential fugitive dust emissions. In addition to reducing fugitive particulate emissions, covered piles may also require less water to control fugitives, potentially reducing the amount of fuel required to dry aggregate and other materials to specification. For any uncovered piles, we request that you specify the conditions which require the application of water or other chemical wetting agents or other methods that may be required to control fugitive emissions. For active piles, we request that the fugitive dust control plan specify the measures the permittee will employ to minimize fugitive dust emissions. Once these control measures have been identified, the fugitive dust control plan should be updated to require recordkeeping to ensure any fugitive dust control measures have been implemented.

10. EUYARD SC IV.1 requires the applicant to monitor wind speeds to determine compliance with the applicable visible emissions requirement in SC I.2. However, neither the fugitive dust control plan in Appendix A nor the draft permit section EUYARD require the permittee to implement fugitive dust control measures when winds are measured at or above 12 mph. To ensure fugitive dust is minimized when winds are above 12 mph and to better ensure compliance with the opacity limit in SC I.2, we request that you require the implementation of fugitive dust control measures when measured winds exceed 12 mph. We further recommend implementing fugitive dust control measures when measured winds are near, but do not exceed, 12 mph to mitigate potential fugitive dust emissions and further ensure compliance with the opacity limit.
11. The PM₁₀ and PM_{2.5} modeling analyses consider one year of meteorological data instead of five years and considers emissions from the larger pile when winds for a particular hour exceed 5.14 m/s (approximately 11.50 mph). We are concerned that the applicant's modeling analysis may underestimate ambient particulate impacts associated with this project. We recommend reevaluating the modeling analysis to ensure that the project's ambient PM₁₀ and PM_{2.5} impacts are not underestimated.
12. EUHMAPLANT SC V.1 requires the permittee to verify and quantify odor emissions upon EGLE's request. We recommend that EGLE evaluate whether recurring odor emission testing is appropriate pursuant to R 336.2001(1)(c). Recurring odor emission testing would allow EGLE to better determine compliance with R 336.1901 and more readily address the local community's potential odor concerns.
13. We recommend that EGLE consider whether it has the authority or discretion to include in the permit a requirement that the results of recurring compliance testing be made available to the public on an easily accessible website. The public posting of, e.g., the results of odor and opacity testing, virgin aggregate/RAP continuous monitoring (required by EU HMAPLANT SC VI.2), particulate and HAP emission testing, and wind speed measurements (required by EU HMAPLANT SC VI.1), would ensure transparency for the affected community.

14. Additional justification should be provided in the permit record to support the air quality analysis and the applicant's use of wind speed thresholds as it applies to the storage pile. Although the applicant cites Wisconsin's Air Dispersion Modeling Guideline as support, we note that Wisconsin's guideline does not provide justification for the approach and is nonbinding on other air permitting authorities. EGLE, as the air permitting authority for this action, has the discretion and authority to request certain air quality analyses for minor NSR permit applications. Michigan's R 336.1241, a requirement approved into Michigan's state implementation plan, requires EGLE to follow procedures and measures listed in the *Guideline on Air Quality Models* at 40 CFR Part 51 Appendix W (Appendix W). In addition to establishing certain requirements and recommendations applicable to NAAQS compliance demonstrations, Appendix W Section 1.0 encourages the use of sound scientific judgment in an air quality analysis and considers the judgment of meteorologists, scientists, and analysts essential. For this permit action, the analysis EGLE conducted and the judgment it exercised as part of the decision-making process should be fully documented within the permit record. Should EGLE choose to allow this approach for any proposed pile, the approach should be evaluated on a case-specific basis that is well documented within the permit record.
15. For all pollutants, the dispersion modeling conducted for this permit relies on one year of National Weather Service (NWS) meteorology collected from Bishop International Airport. Appendix W Section 8.4.2(e) recommends acquiring enough meteorological data to ensure that worst case meteorological conditions are adequately represented in the model results and requires the use of 5 years of representative NWS data. We request that you conduct the criteria pollutant and TAC analysis using 5 years of meteorological data. We recognize that R 336.1241 provides EGLE discretion to allow the use of only 1 year of NWS data for nonmajor PTIs.² The PM₁₀ and PM_{2.5} analyses restrict the hours that the pile may emit fugitives based on hourly wind speeds, suggesting that a larger meteorological database may be necessary to capture worst case meteorological conditions. The TAC analysis may also be improved to capture worst case meteorological conditions that may not be present in one year of NWS data. Modeling based on 5 years of meteorological data increases the likelihood that the worst-case meteorological conditions are considered as part of this analysis and would be consistent with NAAQS analyses conducted for other regulatory purposes.
16. Dispersion modeling for particulate emissions relies on a critical wind speed threshold of approximately 11.50 mph for the purpose of considering fugitive emissions from the pile. From information included in the permit record, it appears that the applicant analyzed the daily fastest mile and daily surface friction velocity. However, it is unclear whether the analysis considers hourly wind speeds and sub-hourly gusts. It is not clear whether the modeling excludes emissions from the pile during hours where gusts exceed the critical wind speed threshold. AP-42 Section 13.2.5.2, a document cited by the applicant, suggests that "estimated emissions should be related to the gusts of the highest magnitude" and that "peak

² R 336.1241 states in relevant part that "[...] the demonstration may be based on the maximum ambient predicted concentration using the most recent calendar year of meteorological data from a representative national weather service [...] station."

winds can significantly exceed the daily fastest mile.”³ This suggests that gusts play a large role in fugitive dust emissions and should be evaluated as part of this analysis. The meteorology used in the modeling analysis is based on 1-minute National Weather Service (NWS) data, enabling an analysis of sub-hourly winds. We recommend that the applicant analyze the 1-minute data to determine whether certain hours contain sub-hourly gusts exceeding the critical wind threshold to further ensure that the analysis does not underestimate ambient PM₁₀ and PM_{2.5} impacts.

17. The applicant cites several documents suggesting that the critical wind speed threshold for the pile is 12 mph. However, it is unclear whether and to what extent the stockpiles analyzed in each document are representative of the applicant’s proposed pile. Although the information provided in each document may be helpful to estimate emissions for applicability purposes, it is less clear whether this information is sufficient to determine the critical wind threshold for the proposed stockpile. None of the documents appear to analyze asphalt plants in particular. Would the applicant’s proposed pile contain material with the same particle size distribution as that analyzed within each cited document? Are there other asphalt plant pile parameters that may affect the critical wind speed threshold that are not reflected in the cited documents, such as moisture content or how well each pile is mixed? We recommend that the applicant evaluate the composition of the proposed pile to further justify whether the comparison is adequate. Lack of a case-specific analysis of the composition of the proposed pile at the source may understate fugitive particulate emissions from the pile, potentially underestimating the modeled impacts attributed to the pile.
18. It is not clear whether the modeling considered other activities that may generate fugitive emissions from the pile. The analysis offered by the applicant appears to focus solely on wind-blown emissions without considering how working the pile may affect the generation of fugitive particulate emissions. We recommend that the applicant address potential fugitive emissions that may be generated while the source works the pile and evaluate whether the current analysis adequately evaluates emissions generated at these times. The permit does not otherwise restrict the applicant from working the pile, suggesting that fugitive emissions associated with working the pile should be included as part of the analysis.
19. The modeling analysis excludes receptors within the proposed property line. Section 6.1.3.1 of the December 21, 2020 application states that the applicant will “prevent access to the property by the general public through a combination of fencing, berms, trees, and shrubs” around the property line. Given the lack of further detail in the application, it is unclear whether this combination of measures as stated within the application would be effective in precluding access to the land by the general public. Appendix W section 9.2.2 recommends the placement of receptors throughout the modeling domain. The December 2, 2019 Revised Policy on Exclusions from Ambient Air⁴ states that receptors may be excluded over land owned or controlled by the stationary source “where the source employs measures, which may include physical barriers, that are effective in precluding access to the land by the

³ AP-42 Chapter 13.2.5 – Industrial Wind Erosion is available online at https://www.epa.gov/sites/default/files/2020-10/documents/13.2.5_industrial_wind_erosion.pdf.

⁴ The Revised Policy on Ambient Air is available online at https://www.epa.gov/sites/default/files/2019-12/documents/revised_policy_on_exclusions_from_ambient_air.pdf.

general public.” We recommend that the applicant identify where each proposed measure will be employed so that EGLE can evaluate whether the proposed measures effectively preclude the general public’s access to land owned or controlled by the proposed source.

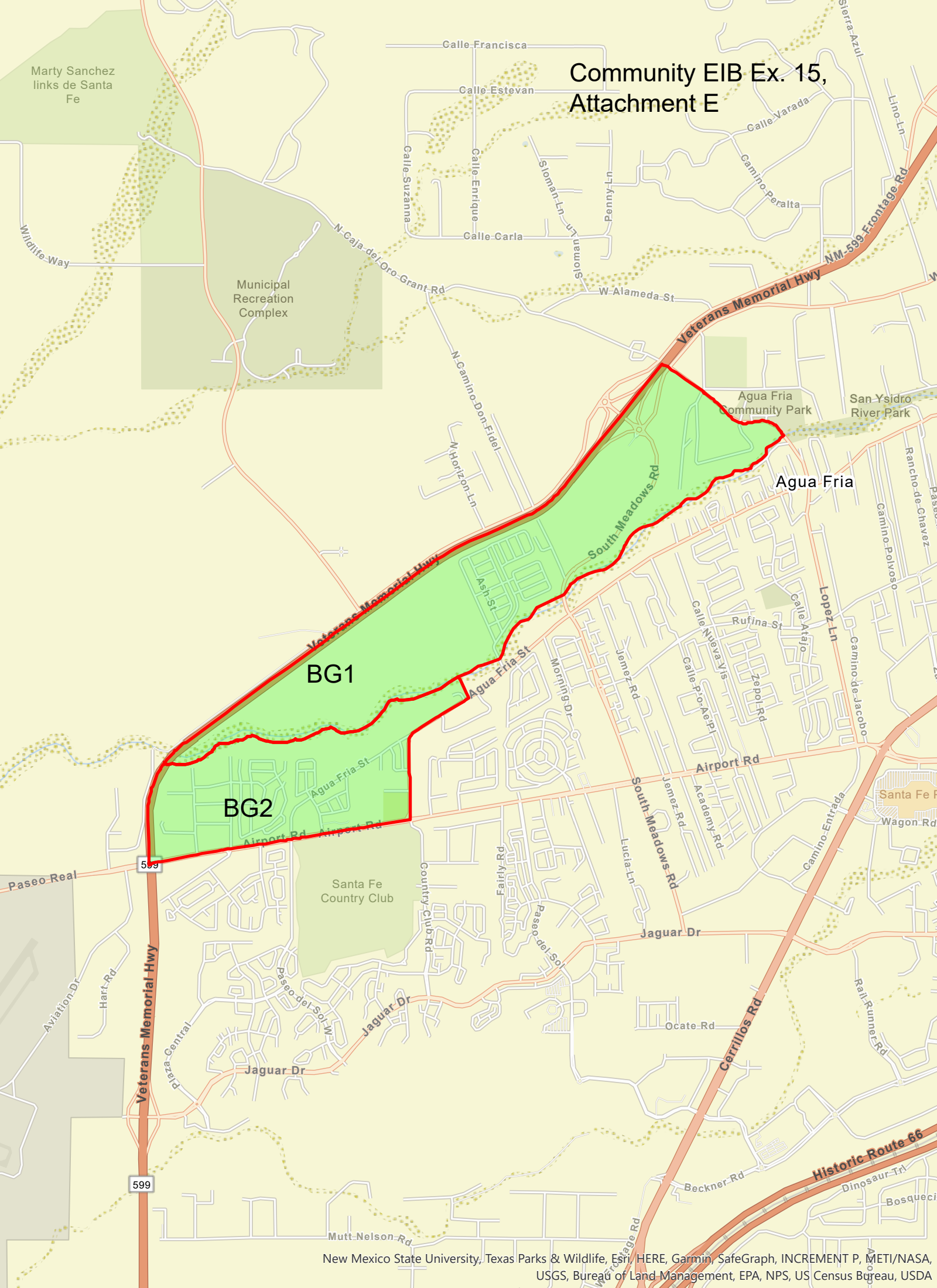
20. The proposed fugitive dust controls described by the applicant include “the presence of berms (approximately 7 feet tall), trees on top of those berms (approximately an additional 7 feet tall when planted), and the fence next to the berm.” We support the implementation of berms and windbreaks to mitigate fugitive dust emissions from the source. However, neither the draft permit nor fugitive dust control plan requires the applicant to install and maintain berms, windbreaks, and covered piles to control fugitive dust emissions. We recommend that EGLE include enforceable permit conditions requiring the source to implement and maintain the selected fugitive dust control measures such as berms, windbreaks, and covered piles.
21. The TAC analysis uses the results of generic TAC modeling to estimate the TAC impacts in relation to the appropriate ITSL or IRSI. The generic TAC modeling result is based on modeled impacts from the drum dryer stack. Although most TAC emissions are emitted from the drum dryer stack, TACs are also emitted from the silo heater, silo filling and loadout processes, and the asphalt cement storage tank. We recommend that you consider modeling each process or emission unit that does not exhaust to the drum dryer stack to avoid underestimating TAC impacts. Dispersion characteristics may differ depending upon the process, potentially resulting in underestimated TAC impacts where a given process has worse dispersion characteristics than the drum dryer stack.
22. Although the NAAQS and PSD increment analysis considers the impact of fugitive emissions from several sources, it is unclear whether the TAC analysis considers fugitive emissions from similar sources. Are there any fugitive TAC emissions that should be considered as part of the TAC analysis? We suggest that you either revise the TAC analysis to include fugitive TACs not already considered or provide justification explaining why fugitive emissions do not need to be included in the analysis.
23. EUHMAPLANT SC II.4 limits recycled asphalt pavement (RAP) to a maximum of 50 percent on a monthly average. We recommend EGLE require compliance with this limit on a shorter-term basis than monthly (such as daily). We note that the draft permit requires the source to continuously monitor the RAP feed rate (see EUHMAPLANT SC VI.2), suggesting that the permittee would already collect data that can be used to determine compliance with the limit on a shorter-term basis. AP-42 section 11.1.1.3 suggests that RAP can be processed at ratios up to 50 percent with little or no observed effect upon emissions. AP-42 is silent with respect to emissions above the 50 percent ratio and does not differentiate between averaging times.
24. EUHMAPLANT SC I.4 through I.7 include a reference to footnote c. However, footnote c does not appear to be included within the emission limit table. We request that you specify footnote c or revise each special condition to remove the reference to this footnote.
25. EUHMAPLANT SC I.4 and I.6 each cite 40 CFR 52.21 (c) and (d) as an underlying applicable requirement. We recommend that you verify whether each special condition cites

the appropriate underlying authority. We note that Michigan has a SIP-approved version of each requirement at R 336.2803 and R 336.2804, respectively.

26. EUHMAPLANT SC II.1 allows the permittee to burn recycled used oil (RUO). We recommend that the permittee consider not using RUO as a fuel for the proposed source. Although EGLE has established requirements that apply when combusting RUO,⁵ eliminating the use of RUO as a fuel could reduce air toxics and sulfur impacts on the local community. Should the permittee choose to combust RUO as part of this process, we recommend that the permittee or EGLE analyze the additional impact combusting RUO could have on the local community over the impact of using other fuels such as natural gas.
27. EUHMAPLANT SC IV.1 requires continuous pressure drop monitoring for the proposed baghouse. We request that EGLE consider the use of a bag leak detection system (BLDS). BLDS would help verify that the fabric filters are not leaking or developing a leak. A BLDS, combined with the requirement to operate the baghouse in a satisfactory manner, would help ensure that the baghouse is operating properly, enable the permittee to react promptly to leaking bags, and further ensure compliance with the particulate matter special conditions.

⁵ See EUHMAPLANT SC II.2, SC III.4, SC V.4, and the RUO compliance monitoring plan in Appendix D.

Community EIB Ex. 15, Attachment E



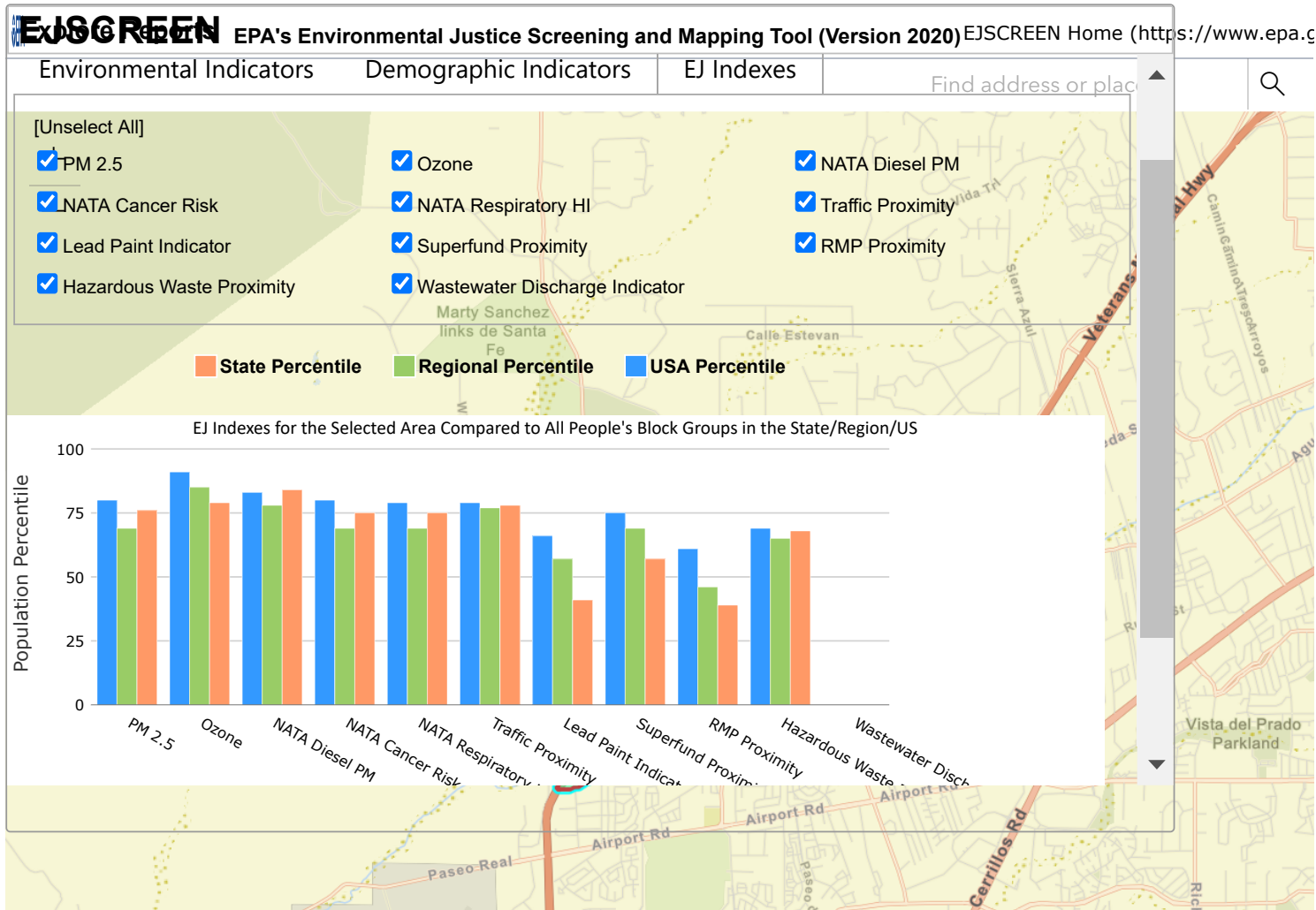


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Environmental Indicators

Demographic Indicators

EJ Indexes

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☒ Demographic Index☒ People of Color Population☒ Low Income Population☒ Linguistically Isolated☒ Less Than HS Education☒ Under Age 5☒ Over Age 64

State Percentile

Regional Percentile

USA Percentile

Demographic Indicators for the Selected Area Compared to All People's Block Groups in the State/Region/US

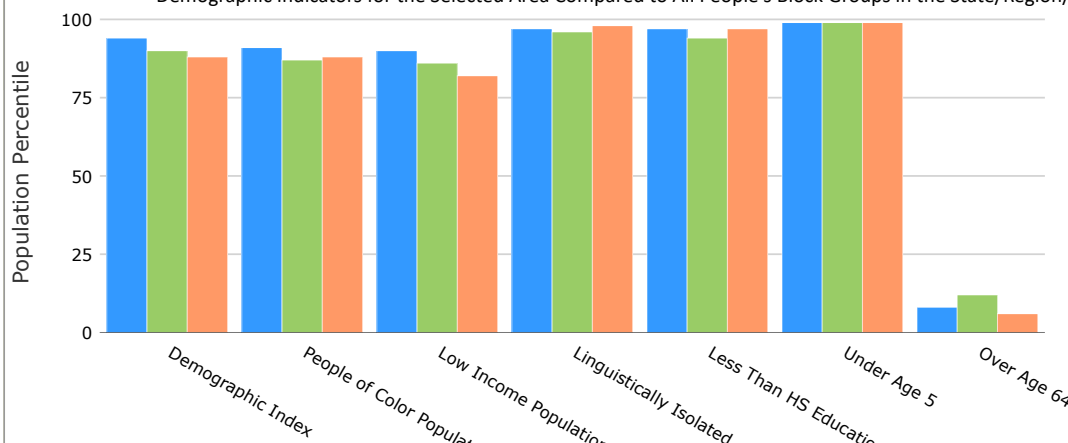


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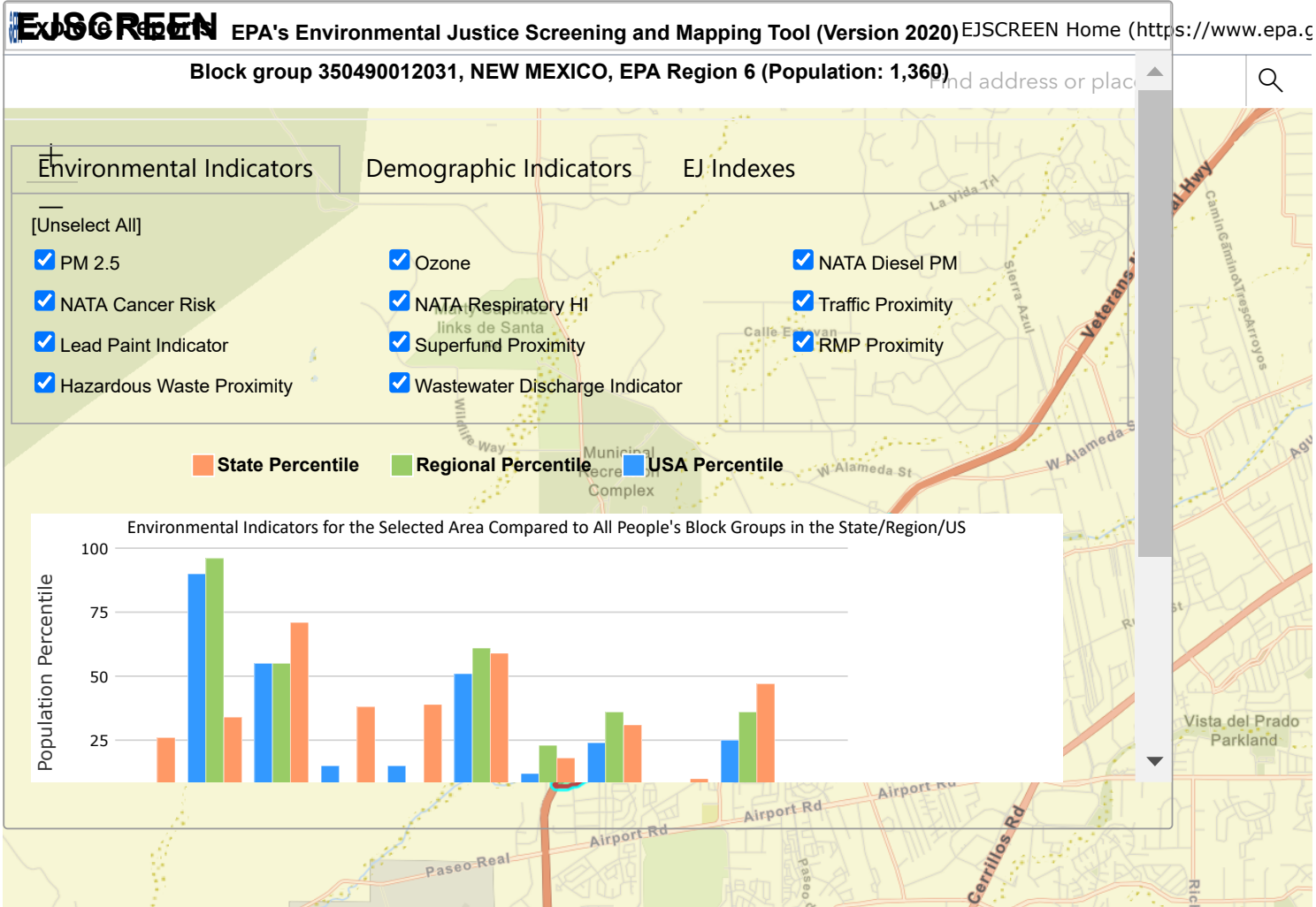


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EJ Indexes for the Selected Area Compared to All People's Block Groups in the State/Region/US

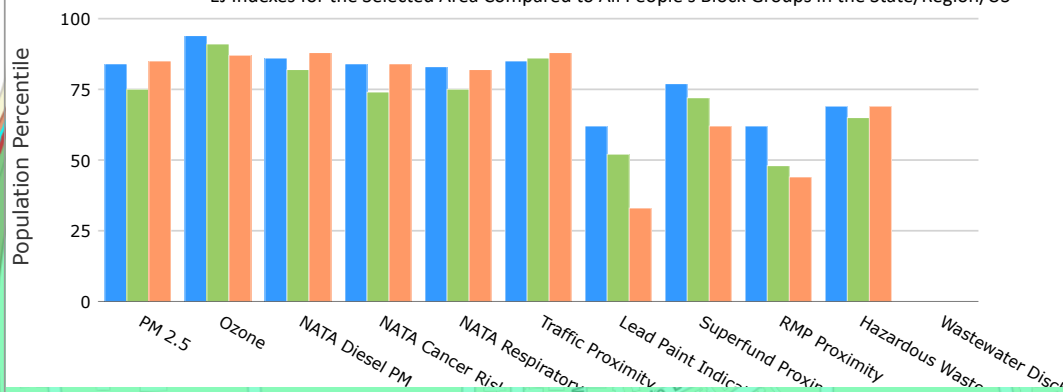


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☒ Demographic Index☒ People of Color Population☒ Low Income Population☒ Linguistically Isolated☒ Less Than HS Education☒ Under Age 5☒ Over Age 64

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Regional Percentile

USA Percentile

Demographic Indicators for the Selected Area Compared to All People's Block Groups in the State/Region/US

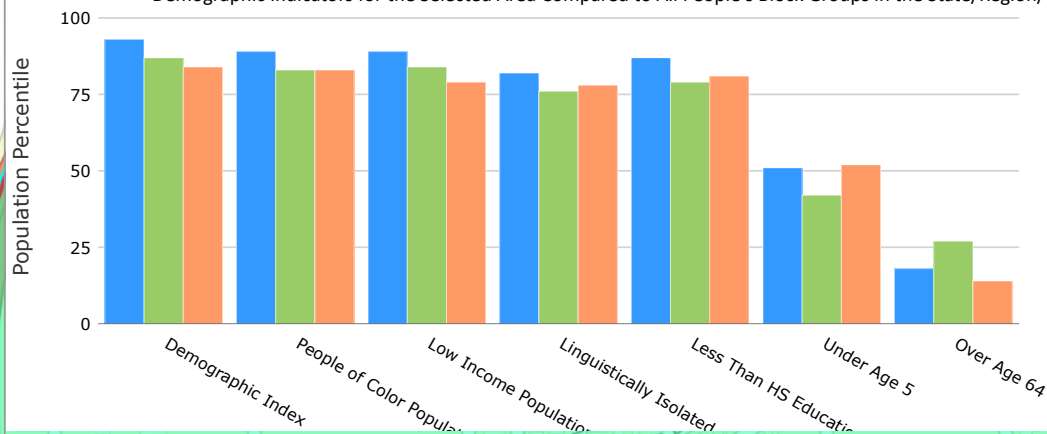


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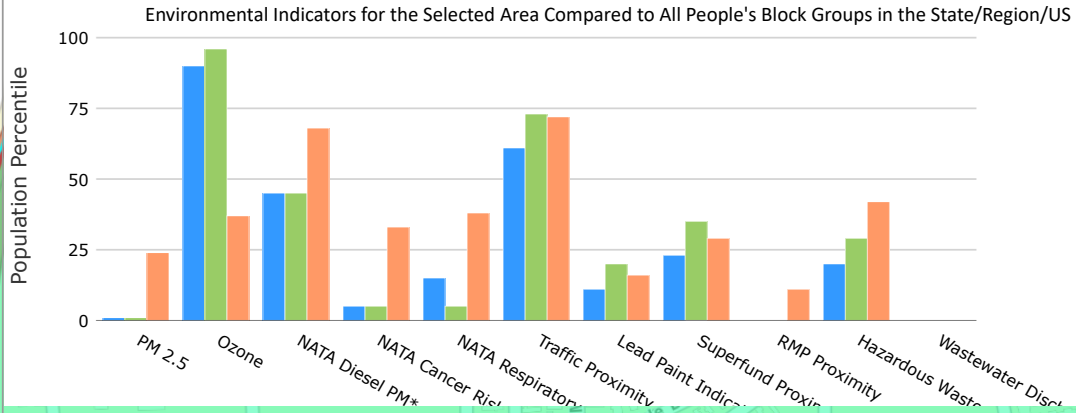


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State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF THE COMMISSIONER

401 East State Street

P.O. Box 420, Mail Code 401-07

Trenton, New Jersey 08625-0420

Tel. (609) 292-2885 • Fax (609) 292-7695

www.nj.gov/dep

PHILIP D. MURPHY

Governor

SHEILA Y. OLIVER

Lt. Governor

SHAWN M. LATOURETTE

Commissioner

ADMINISTRATIVE ORDER NO. 2021-25

WHEREAS, pursuant to its enabling legislation at N.J.S.A. 13:1D-1, et seq., the New Jersey Department of Environmental Protection (Department) is charged with formulating and implementing comprehensive policies for the protection of the environment and public health, including, but not limited to, the conservation of the State's natural resources and prevention of pollution; and

WHEREAS, all residents of the State of New Jersey, regardless of income, race, ethnicity, color, or national origin, have a right to live, work, learn, and recreate in a clean and healthy environment; and

WHEREAS, as reflected in Governor Philip D. Murphy's Executive Order No. 23 (EO 23) and the State's Environmental Justice Law, codified at N.J.S.A. 13:1D-157, et seq., New Jersey's low-income communities and communities of color have been historically subjected to a disproportionately high number of environmental and public health stressors, including pollution from mobile sources, as well as numerous industrial, commercial, and governmental stationary sources; and

WHEREAS, EO 23, dated April 20, 2018, the facts and circumstances of which are adopted by reference herein, established that it is the policy of the State of New Jersey to further the promise of environmental justice in all Executive Branch actions; and

WHEREAS, to further the promise of environmental justice, all New Jersey communities, and especially those disproportionately affected by environmental and public health stressors, must have a meaningful opportunity to participate in decision-making that affects their environment, communities, homes, and health; and

WHEREAS, on September 18, 2020, Governor Murphy signed the Environmental Justice Law, the first in the nation to empower an environmental regulatory agency to deny or condition permits for certain pollution-generating facilities that would cause or contribute to adverse cumulative environmental and public health stressors that disproportionately impact overburdened communities; and

WHEREAS, the Department is now at work developing regulations that facilitate a transparent, objective, data-driven process to assess adverse cumulative environmental and public health stressors and determine disproportionate impacts on overburdened communities, which the Department intends to propose pursuant to the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq., in the fall of 2021; and

WHEREAS, upon promulgation of these regulations, in addition to applicants seeking to site new facilities, applicants seeking to renew major source permits or expand of existing facilities in overburdened communities, as each term is defined under the Environmental Justice Law, will be subject to the requirements set forth therein, and

WHEREAS, the Department cannot exercise the full extent of its authority under the Environmental Justice Law until these implementing regulations are duly promulgated; and

WHEREAS, while the Department works diligently to develop, propose and promulgate the regulations necessary to implement the Environmental Justice Law, there is an immediate need for further action to ensure, to the maximum extent allowable by law, that the spirit, intent, and direction of EO 23 and the Environmental Justice Law are realized; and

WHEREAS, in addition to empowering the Department to assess disproportionate impacts, the Environmental Justice Law, consistent with EO 23, requires permit applicants to facilitate meaningful opportunities for overburdened communities to engage in permitting decisions for pollution-generating facilities through an enhanced public participation process that includes, but is not limited to, soliciting feedback through public hearings in the subject overburdened community during which the applicant would address, environmental and public health stressors associated with the proposed facility, existing conditions affecting the overburdened community, and opportunities for the applicant to avoid or reduce adverse environmental or public health stressors in the overburdened community; and

WHEREAS, on January 19, 2021, pursuant to the Environmental Justice Law, the Department published a list of overburdened communities in the State and associated electronic mapping available at <https://www.nj.gov/dep/ej/communities.html>; and

WHEREAS, the Department routinely receives applications seeking permits for facilities, as those terms are defined under the Environmental Justice Law, and which are governed by the Department's existing regulations, including requirements for public comment periods of varying length and, at times discretionary, public hearings; and

WHEREAS, certain Department regulations specify only a minimum period that must be provided to accept public comment for consideration on applications for, or renewals of, permits,



registrations, plans or other approvals, which periods are routinely extended where substantial public interest in a particular application exists; and

WHEREAS, within its discretion pursuant to various existing authorities, the Department can require points of further analysis and applies special conditions to facility permits when it deems those conditions necessary to protect the environment and public health, including measures intended avoid or minimize adverse outcomes, and

WHEREAS, the Department has inherent authority to require and extend public comment periods, to require and set the conditions upon which public hearings may be held, to require and set the parameters for analyses necessary to enable Departmental review of a permit application, and to apply conditions to permits authorizing various activities subject to the Department's jurisdiction; and

NOW, THEREFORE, I, Shawn M. LaTourette, Commissioner of the New Jersey Department of Environmental Protection, by virtue of the authority vested in me by N.J.S.A. 13:1B-3, N.J.S.A. 13:1D-9, and under all applicable statutes and regulations, do hereby ORDER and DIRECT:

1. Where facilities seek permits in overburdened communities, to the extent consistent with applicable law, all public comment periods shall be no less than sixty (60) days, irrespective of minimum timeframes as may be established under applicable regulations, and shall be extended by an additional thirty (30) days upon the written request of member(s) of the overburdened community indicating that an extension is necessary to provide the information requested under Paragraph 2(b).
2. In the review of applications for facilities seeking permits in overburdened communities that are or would be subject to the requirements of the Environmental Justice Law, all Divisions of the Department shall, to the maximum extent allowable consistent with applicable statutes and regulations:
 - a. Require each applicant to hold a public hearing in a manner determined by the Department as consistent with the Environmental Justice Law, so as to maximize participation of individuals within the subject overburdened community;
 - b. During the extended public comment period provided for under Paragraph 1 above, encourage those providing public comment, whether verbally or in writing, to provide the Department and the applicant with information regarding existing conditions within the overburdened community and potential facility-wide environmental and public health stressors that could result in adverse impacts upon the overburdened community were the regulated activity approved;



- c. Require the applicant to respond to and address the concerns raised by individuals in the overburdened community during the public comment process, including, but not limited to, requiring additional analysis deemed necessary by the Department to enable its review of the subject application and evaluation of the concerns raised during the public comment period;
 - d. Strongly encourage each applicant to engage directly with individuals in the overburdened community in advance of and in addition to formal public comment by providing facility-wide information consistent with the Environmental Justice Law and soliciting concerns regarding environmental or public health stressors posed by the facility; and
 - e. Where permits or approvals may be issued, apply such special conditions as may be necessary to avoid or minimize environmental or public health stressors upon the overburdened community to the maximum extent allowable by law.
- 3. This Order shall take effect immediately and shall apply to all existing permit applications with open and unexpired public comment periods.
 - 4. Nothing in this Order shall in any way limit the Department's authority to reopen or further extend any public comment period on a case-by-case basis consistent with applicable statutes and regulations.
 - 5. This Order shall remain in effect until such time as the implementing regulations required by the Environmental Justice Law are duly promulgated or unless extended, revoked, or otherwise modified by me in writing.

Date: September 20, 2021



Shawn M. LaTourette
Commissioner





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OCT 29 2021

THE ADMINISTRATOR

Ms. Sylvia Marie Orduño
Chair
National Environmental Justice Advisory Council
Michigan Welfare Rights Organization
23 East Adams Street, 4th Floor
Detroit, Michigan 48226

Dear Ms. Orduño:

I would like to offer my gratitude to you for your July 12, 2021, letter¹ marking my first 100 days as the Administrator of the U.S. Environmental Protection Agency.

The National Environmental Justice Advisory Council's role is critical to centering the EPA's mission on environmental justice. Advancing environmental justice is one of my top priorities, and we will rely on the council's advice and recommendations to make significant, lasting change. The enclosure to this letter provides a detailed response to each of the recommendations and issues raised by the NEJAC's letter and expands upon the presentations of EPA senior leadership at the August 18-19, 2021, NEJAC public meeting. The attachment also includes some additional information that I felt the council would find both useful and meaningful. I wanted to communicate the work that each of the EPA National Program Offices has initiated or completed in support of environmental justice since January 20, 2021.

In response to the NEJAC requests for "communication and collaboration improvements between the NEJAC and EPA leadership," I affirm that improved communication and coordination with the council and all stakeholders is critical to the success of our efforts. The EPA senior leadership is committed to achieving meaningful and regular engagement with NEJAC members to inform our work. The EPA appreciates that the NEJAC is a group of dedicated voluntary representative members who commit their time to the importance of this forum. In return, I commit to you that the EPA's senior leadership will consistently attend and, upon request, participate in NEJAC's public meetings.

As you know, President Joe Biden has pledged to prioritize environmental justice and put the whole of government behind advancing a systematic approach to racial justice, civil rights and equity. Advice and recommendations from the council are a critical part of the EPA's efforts to

¹ National Environmental Justice Advisory Council, *Letter to EPA Administrator Michael Regan, Re: The National Environmental Justice Advisory Council's Recommendations and Calls to Action* (July 12, 2021); available online at <https://bit.ly/2Zjepj8>.

respond to the President's mandate and to ensure that environmental justice becomes part of the EPA's DNA. Our partnership, coordination and communication with the NEJAC will serve as an important measure of transparency and accountability for my broader commitment to center our mission on achieving environmental justice.

I also understand that the council has created several workgroups to focus on urgent issues. These workgroups will provide an excellent opportunity for regular engagement between NEJAC members, program leadership and their staffs in the coming months. I look forward to any recommendations and advice that these workgroups present for consideration to the full NEJAC body. I also commit to you that your written advice and recommendations will receive prompt acknowledgement followed by engagement and substantive written responses by relevant EPA leadership and programs.

Regarding the NEJAC's request for a "communication and collaboration request between the NEJAC and the White House Environmental Justice Advisory Council," both the EPA and the Council on Environmental Quality support enhanced coordination between the two bodies. The EPA's Office of Environmental Justice is responsible for supporting both councils and has coordinated with CEQ to bring the two bodies together. I look forward to facilitating a close working relationship between NEJAC and WHEJAC that will grow over time.

This is an unprecedented time of opportunity to fundamentally advance equity, justice and civil rights across the United States. The leadership provided by President Biden alongside both the momentum generated and the mandate delivered through the efforts of individuals and communities across the United States – many of whom are represented on the NEJAC – has brought our country to this point in history. I look forward to continuing to engage with the NEJAC as we collectively advance our environmental justice efforts.

Sincerely yours,

A handwritten signature in dark ink, reading "Michael S. Regan". The signature is fluid and cursive, with the first name "Michael" and last name "Regan" being more prominent than the middle initial "S".

Michael S. Regan

Enclosure

Enclosure: Responses to the NEJAC's 100-day Letter to Administrator Regan

The EPA's National Program Offices have provided topic-by-topic responses to the individual advice and recommendations listed in the NEJAC's 100-day letter to Administrator Michael Regan.¹ Each section starts with a short summary of the NEJAC's recommendations followed by substantive responses from relevant programs. Where relevant, the program offices included additional information to describe the full scope of the EPA's equity, justice and civil rights activities under Administrator Regan's leadership.

Elevating Environmental Justice at EPA

American Rescue Plan Funding

In March 2021, Congress appropriated \$100 million to the EPA through the American Rescue Plan Act. Administrator Regan directed the EPA to develop a plan to use those funds according to several principles. First, the EPA should prioritize resources and assistance to meet the needs of overburdened and vulnerable communities hit hardest by the COVID-19 pandemic. Second, the EPA should use existing grant and contract vehicles wherever possible to speed the delivery of assistance to where it is needed the most. Third, the EPA should rely on our long experience, feedback from communities, and the advice and recommendations of the NEJAC to determine which programs have the greatest impact on the ground for communities.

The EPA is proud of the work accomplished to develop a plan that is already putting those resources to good work in a variety of ways. This includes providing more funding through the EJ grant programs this year than the EPA has provided in the previous decade. The EPA will use a significant portion of the funding for community air monitoring, both to assess compliance with emissions standards and to replace filter-based particulate matter monitors with continuous monitors that will provide much more useful data relevant to public health. This will be especially critical to protect the health of vulnerable populations from exposure to smoke from wildfires. The EPA will also provide funding directly to state, local, and tribal governments and community-based organizations for their own air quality monitoring priority projects. ARPA funding has provided a huge boost to multiple technical assistance programs across the agency that will support everything from circuit riders for drinking water system compliance to community efforts to build resilience to climate change. The EPA will use a significant portion of ARPA funds to pilot an electric school bus program through our Diesel Emission Reduction Act rebate program. The EPA will also provide grant funds directly to tribal governments to enhance their ability to engage and support their communities.

Executive Orders and the EPA's Strategic Plan

¹ NEJAC (2021, July 12). *Letter to EPA Administrator Michael Regan, Re: The National Environmental Justice Advisory Council's Recommendations and Calls to Action* (July 12, 2021); available online at <https://bit.ly/2X17UWN>.

Thanks to the leadership of President Biden, this has truly been an unprecedented and exciting time for EJ activity across the federal government. Executive Orders 13985 on racial equity² and 14008 on tackling the climate crisis³ mandate a whole of government approach to advancing equity and justice across everything the agency does. The EPA has aggressively pursued the implementation of these executive orders through its own programs and is also providing regular support to White House offices leading implementation across the federal government. The EPA looks forward to engaging the NEJAC over the coming months and years on continued efforts to implement these executive orders and programs such as Justice40.

The EPA's work to stay on the leading edge of implementing these executive orders aligns with the agency's work to make significant, lasting change on environmental justice. For the first time, the EPA is including EJ and civil rights compliance as a distinct and core goal of the next EPA multiyear strategic plan. No longer will the agency's work to advance justice and live up to its civil rights responsibilities be left outside of the EPA's bedrock planning documents. The EPA's draft strategic plan is out for public comment, and the agency looks forward to reviewing NEJAC's comments and engaging with the council as the EPA moves forward to implement the plan. Decades of NEJAC's advice and recommendations have informed the EPA's approach to prioritizing EJ and civil rights in its new strategic plan.

President Biden's FY22 budget request includes historic funding for environmental justice. This budget proposal also announces the EPA's plan to launch a full-fledged National Program Office devoted to environmental justice and civil rights alongside others such as the Office of Water and the Office of Enforcement and Compliance Assurance. While the budget is not yet enacted, the EPA plans to be ready to organize a new national program that will house both the EJ program and the external civil rights compliance program. Once again, the EPA has heard and agrees with what the NEJAC has long advised – the relationship between EJ and civil rights is deep, mutually supportive, and should operate in close alignment to reinforce the efforts of the two programs. This new national program office will finally unlock this potential and provide an example across the United States for how to craft strong, effective, and responsive EJ and civil rights programs that are focused on achieving justice and ensuring the rights of communities that have for generations suffered disproportionately.

Issues Related to Civil Rights Compliance and Enforcement

The NEJAC has emphasized to the EPA that communities suffering from racial discrimination have a right to have the EPA review and resolve their complaints in a substantive and timely manner with input from the complainants. To that end, the NEJAC believes the EPA must substantively invest in responding to recommendations to address Title VI compliance concerns, including case backlogs, deadlines, and complainant involvement in settlements discussions.⁴

² Federal Register (2021, January 25). *Executive Office of the President Executive Order 13985: Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*; available online at <https://bit.ly/3b8dwfX>

³ Federal Register (2021, February 1). *Executive Office of the President Executive Order 14008: Tackling the Climate Crisis at Home and Abroad*; available online at <https://bit.ly/2ZjMCyW>

⁴ The NEJAC: (2017, July 31). *Re: Letter to Administrator Scott Pruitt re: Title VI of the Civil Rights Act of 1964*; available online at <https://www.epa.gov/sites/default/files/2018-01/documents/nejac-title-vi-letter-8-1-17-final.pdf>

The EPA strongly supports increased and meaningful outreach to overburdened, underserved, and disadvantaged communities, people with disabilities, and lasting and credible engagement with stakeholders, including the NEJAC, and recipients to help inform our policies, practices, and procedures. The External Civil Rights Compliance Office is partnering with OEJ to integrate EJ principles in civil rights enforcement. The EPA's draft FY22-26 Strategic Plan elevates civil rights compliance as a key objective. The EPA looks forward to receiving the NEJAC's comments on the draft plan and discussing it at the November 10 public meeting. The EPA is also interested in engaging with the NEJAC to explore the feasibility of establishing a Title VI NEJAC workgroup.

Discrimination is a barrier to achieving environmental justice and equity, and the EPA enforcement of federal civil rights laws is a vital tool in the agency's efforts to advance equity and environmental justice. Accordingly, Administrator Regan has directed ECRCO to strengthen civil rights enforcement and prioritize the integration of civil rights enforcement accountability throughout all EPA programs and activities to impact positive and sustainable change for the most overburdened, underserved, and disadvantaged communities and people with disabilities. For the EPA to strengthen civil rights enforcement, the agency recognizes that it must move the external civil rights program from being largely reactive – only responding to complaints – to proactive, making expectations clear through guidance and using affirmative authority to initiate compliance reviews. The EPA must change both the expectations of recipients of federal funds and its role as an agency – not just ECRCO, but the whole agency – to ensure compliance with civil rights laws, particularly Title VI of the Civil Rights Act of 1964.

As noted above, the EPA plans to launch a new National Program Office devoted to environmental justice and civil rights. ECRCO and OEJ would be at the center of this new national program, thereby fostering more coordination between staff working on external civil rights compliance and environmental justice at EPA headquarters and in the regions.

Other key actions include:

- Developing and issuing guidance to provide greater clarity to recipients and stakeholders regarding legal requirements, including standards for assessing adverse disparate impacts (considering cumulative impacts) that are applicable to programmatic decisions.
- Using the EPA's affirmative authority to conduct post-award compliance reviews impacting the most overburdened, underserved and disadvantaged communities and people with disabilities.
- Verifying civil rights compliance before funds are awarded to applicants for EPA financial assistance.
- Issuing guidance for recipients emphasizing the need for EPA recipients to come into compliance with foundational nondiscrimination program requirements, including clarifying obligations for recipients to collect, and maintain important data about the communities they serve, and further for recipients to use that data to ensure that their programmatic decisions (such as permitting) do not result in discriminatory outcomes for overburdened, underserved and disadvantaged communities and people with disabilities.

- Continuing to provide training to EPA staff on civil rights issues on a regular basis, and
- Engaging meaningfully with external stakeholders, especially overburdened, underserved and disadvantaged communities and people with disabilities.

The longstanding backlog of cases in the EPA's external civil rights program has been addressed. While the EPA has faced past challenges in addressing a sizeable backlog of cases, over the past several years the EPA focused its energy and resources on managing its Title VI complaint docket, including addressing in full its docket of older cases and markedly improving its case processing times for new cases. The EPA has put in place internal accountability measures to ensure timely investigations and resolution of complaints.

The EPA is committed to promoting appropriate involvement by both complainants and recipients in the complaint investigation and informal resolution processes. Going forward and consistent with EJ principles, the EPA is prioritizing enhanced communication and engagement with complainants during the complaint investigation and informal resolution processes, as well as generally with agency stakeholders, including those in environmentally overburdened and disadvantaged communities and people with disabilities. To offer one example, the EPA is exploring options for enhancing Alternative Dispute Resolution services with the capacity to offer services to a greater number of recipients and communities to resolve discrimination complaints, including expanding resources to offer additional approaches to ADR.

The EPA's goal is to undertake thorough and effective complaint investigations and resolutions while adhering to the required regulatory timeframes. In investigations, the EPA routinely seeks additional information from complainants and recipients, should they wish to provide it, to obtain information and evidence relevant to the issues accepted for investigation; fill in information gaps; identify sources of documentary and other evidence; and determine appropriate matters for an informal resolution agreement.

On September 20, 2021, the EPA sent a fulsome response to the EPA Office of Inspector General, which had raised concerns about the EPA's implementation of Title VI in a 2020 report. In that response, the EPA committed to several specific actions to strengthen this program at the EPA. The EPA's response is available in full on the EPA website.⁵

Issues Related to Enforcement and Compliance

Consistent with the mandate in Executive Order 14008, Administrator Regan has directed the Office of Enforcement and Compliance Assurance to "strengthen enforcement of environmental violations with disproportionate impact on underserved communities." In response, OECA has issued four directives:

⁵ U.S. EPA (2021, September 20). "OGC Revised Responses to OIG Recommendations," Project No. OA&E-FY19-0357; available online at <https://bit.ly/3maMMle>.

- *Strengthening Enforcement in Communities with Environmental Justice Concerns* (April 30, 2021).⁶ Regarding civil regulatory enforcement, this memo directs an increase in the number of facility inspections in overburdened communities, enhancements to remedies, and an increase in community engagement.
- *Strengthening Environmental Justice through Criminal Enforcement* (June 21, 2021).⁷ This memo directs strengthened detection of environmental crimes in overburdened communities through effective civil-criminal coordination on investigations and cases, improved assistance to crime victims, and enhanced remedies sought in environmental crime cases.
- *Strengthening Environmental Justice through Cleanup Enforcement Actions* (July 1, 2021).⁸ This memo directs the EPA's cleanup enforcement staff to require responsible parties to take early and prompt cleanup actions, press for more robust enforcement instruments, and increase cleanup oversight.
- *Using All Appropriate Injunctive Relief Tools in Civil Enforcement Settlements* (April 26, 2021).⁹ This memo encourages use of the full array of policy and legal tools to ensure benefits to affected individuals and communities, including advanced monitoring, audits, electronic reporting and posting of compliance data.

In accordance with Administrator Regan's direction to strengthen enforcement in vulnerable communities, OECA is already intervening to stop pollution in communities and achieving notable results:

- In May, EPA issued a Clean Air Act Section 303 Emergency Order to reduce dangerous emissions of hydrogen sulfide from the New Indy Containerboard pulp and paper mill, located approximately five miles from the Catawba Indian Nation in South Carolina. The Order requires New Indy to immediately take steps to install fence-line monitors, establish limits, and report monitoring results. The surrounding community had made thousands of odor complaints.
- In June, the EPA issued a Clean Air Act Section 303 Emergency Order to Limetree Bay to pause all operations at its St. Croix, U.S. Virgin Islands refinery following multiple air emissions incidents that created an imminent and substantial endangerment to public health or the environment. The EPA has set up a community hotline, worked closely with the nearby community, and monitored the air near the Limetree Bay refinery for harmful pollutants.
- In July, the EPA issued a Safe Drinking Water Act Section 1431 Emergency Order to Cahokia Heights in the East St. Louis Metro area, to address potential drinking water issues related to chronic raw sewage overflow issues in residential areas.

⁶ U.S. EPA (2021, April 30). *Memorandum from Lawrence Starfield, Acting Assistant Administrator of OECA, Re: Strengthening Enforcement in Communities with Environmental Justice Concerns*; available online at <https://bit.ly/310ndLK>

⁷ U.S. EPA (2021, June 21). *Memorandum from Lawrence Starfield, Acting Assistant Administrator of OECA, Re: Strengthening Environmental Justice through Criminal Enforcement*; available online at <https://bit.ly/3mciFKd>

⁸ U.S. EPA (2021, July 1). *Memorandum from Lawrence Starfield, Acting Assistant Administrator of OECA, Re: Strengthening Environmental Justice Through Cleanup Enforcement Actions*; available online at <https://www.epa.gov/system/files/documents/2021-07/strengtheningenvrjustice-cleanupenfaction070121.pdf>

⁹ U.S. EPA (2021, April 26). *Re: Using All Injunctive Relief Tools in Civil Enforcement Settlements*; available online at <https://bit.ly/3pBgJNl>

- In July, the EPA issued a Safe Drinking Water Act Section 1431 Emergency Order to the Clarksburg Water Board in Clarksburg, West Virginia, in response to elevated lead levels found in tap water.

As the EPA expressed during the meeting on August 18, the leadership and staff in OECA would welcome the opportunity to meet with the NEJAC in the near future to have a more in-depth dialogue about our activities to strengthen enforcement in overburdened communities, and to hear ideas for improving community engagement in enforcement.

Issues Related to Drinking Water and Water Infrastructure

Over the past several years, the NEJAC has consistently expressed the need for accountability and action in the EPA's work with state, local, and other federal entities to remediate water infrastructure and human health concerns that continue to impact communities. NEJAC's recommendations have focused on a wide range of concerns, such as the 2017 letter to the EPA Administrator Scott Pruitt with updated recommendations concerning the crisis in Flint, Michigan, and the 2019 letter to Administrator Andrew Wheeler outlining urgent water infrastructure needs. Recommendations include prioritizing water safety in communities with EJ concerns, ensuring water infrastructure funding and affordability, and building capacity and resilience of communities as water resources are impacted by climate change. The NEJAC also has highlighted the need to reestablish the public's trust and confidence in the EPA's regulations and its responsiveness to communities, especially those disproportionately impacted by water issues.¹⁰

Everyone in this country, regardless of their zip code, the color of their skin, or financial means should have clean, safe, affordable and reliable drinking water and wastewater services. The EPA is working to address some of our country's most pressing water needs, specifically in response to the crisis in Flint, Michigan, and more broadly in addressing water infrastructure needs across the country. This is a critical undertaking as America's water resources are increasingly stressed by the effects of climate change and as the impacts of neglected water infrastructure are felt in communities nationwide. The EPA is committed to working with and supporting communities in ensuring that there is equitable access to clean drinking water and sanitation, including effective wastewater treatment.

Ongoing Engagement: Responding to the Flint Water Crisis

In Flint, the water crisis jeopardized the community's access to this essential resource. The crisis has had and continues to have broad impacts on residents, children and the community. Its effects are deep and long-lasting. Administrator Regan and Assistant Administrator for Water Radhika Fox visited the city in July 2021 to hear first-hand about recent developments and how the EPA can continue to support the community's recovery. During the visit, they heard from community members about ongoing challenges related to trust, and to access information about

¹⁰ The NEJAC (2017, July 31). *Letter to Administrator Scott Pruitt re: Flint, Michigan Drinking Water Contamination*; available online at <https://www.epa.gov/sites/default/files/2018-01/documents/nejac-flint-water-letter-8-1-17-final.pdf> and the NEJAC (2019, March 1). *Report to Administrator Andrew Wheeler re: EPA's Role in Addressing the Urgent Water Infrastructure Needs of Environmental Justice Communities*; available online at <https://bit.ly/2Zu097J>

Flint's water and infrastructure. They also saw that community members continue to lead and identify paths forward. Administrator Regan was pleased to be able to visit the Flint Community Water Lab, where residents can have their water tested for free. Initiatives like the Water Lab show the resourcefulness and vision of Flint's residents. To help the community continue to recover, the EPA knows the people of Flint require further support.

The agency is committed to fighting for the resources that Flint needs to recover and build back better. The EPA is taking several steps to provide support and address the issues.

EPA Region 5 is actively engaging with community leaders in Flint to address environmental justice and civil rights concerns. In response to an August 5, 2021, memo from environmental justice leaders that includes priorities for Flint, the agency outlined our commitments and actions underway. Region 5 and OEJ also are engaging directly with EJ leaders this autumn to continue this important dialogue and build on the commitments in the memo. The engagement will include further discussion of the EJ leaders' priorities as well as planning for concrete action to advance environmental justice priorities for Flint, Detroit, and Benton Harbor.

The EPA continues to meet monthly with the State of Michigan Department of Environment Great Lakes and Energy and the City of Flint to follow and monitor work to improve Flint's water system, its water quality and to enhance communications between government agencies to ensure issues are addressed in a timely manner. The EPA is also working with EGLE and the city to improve their communications with the community about water issues. The EPA has a full-time staff person in Flint supporting efforts by the city and EGLE to communicate effectively and proactively with Flint residents. The EPA is working to make this staff person more visible and better equipped to respond to water-related inquiries from Flint residents.

To help address the major issue of water affordability, the EPA is committed to evaluating how its existing water infrastructure financing programs – including the Clean Water and Safe Drinking Water State Revolving Funds, Water Infrastructure Improvements for the Nation Act grants and Water Infrastructure Finance and Innovation Act loans – can support Flint and other disadvantaged communities and people with disabilities. If signed into law, the bipartisan Infrastructure Investment and Jobs Act would make a transformational \$50 billion investment in our nation's water infrastructure.

Water Infrastructure and Public Health Priorities: Lead and PFAS

Access to safe, affordable water is critical to ensuring the health and resilience of all communities across America. The EPA would like to highlight two pressing public health issues that the agency is actively addressing now, in part through its infrastructure programs: lead exposure and PFAS exposure. Lead exposure, including through drinking water, is a public health issue of paramount importance. Lead's adverse effects on children and public health are serious and well known. The EPA estimates that 6-10 million homes in the U.S. have drinking water service lines that contain lead. Listening to and learning from communities that are most impacted by lead in drinking water is essential to ensuring that the EPA's actions protect all communities – especially communities of color and low-income communities.

The EPA recently concluded its public engagement around revisions to the Lead and Copper Rule. The agency obtained input from the public, stakeholder groups, tribal representatives, state co-regulators, local officials and communities to ensure that the revised rule protects communities from lead contamination in drinking water. During those engagements, the EPA heard clearly that federal resources are essential to help communities address lead service lines. The EPA continues to launch important new grant programs under the WIIN Act that target support to underserved, small and disadvantaged communities and people with disabilities. These grants improve access to safe drinking water and support programs that test for and reduce lead in drinking water. Congress is also considering substantial new funding.

The EPA also is prioritizing PFAS as a pressing water infrastructure challenge. We provide more detail on our PFAS work later in this attachment.

Additional Priorities: Funding and Capacity Development

To address these critical health issues and other barriers to clean, safe, accessible water in communities, the EPA has been talking with water utility directors, public officials and community leaders across the country about the challenges of maintaining water infrastructure with limited resources. These discussions underscored that local leaders need a stronger federal partner committed to bringing resources and technical assistance to help upgrade communities' water infrastructure.

The EPA is committed to providing that stronger partnership to local leaders. Examples of actions the EPA is taking to address infrastructure issues include the following.

In support of EO 14008 on Tackling the Climate Crisis, the EPA is implementing three key water infrastructure programs as pilots for early action under President Biden's Justice40 Initiative. These programs represent more than 30 percent of the agency's budget: The Clean Water SRF, the Drinking Water SRF, and the Reducing Lead in Drinking Water grant program under the WIIN Act. These commitments will contribute to meeting the President's goal of delivering 40 percent of the overall benefits from federal investments to disadvantaged communities and people with disabilities.

The EPA has invited and is considering public comments on its proposed 2020 Financial Capability Assessment for the Clean Water Act, which will help communities better plan water infrastructure improvements. As the FCA is finalized, the EPA will strengthen both Clean Water Act protections and water service affordability protections. The EPA is committed to supporting water utilities that serve economically disadvantaged communities and people with disabilities. The agency will work with them to help ensure their customers can afford water service and benefit from vital clean water protections that support public health, the environment and local economies.

The EPA is also committed to helping improve water infrastructure serving tribal communities. On October 14, 2021, the EPA released an action plan to strengthen the agency's partnership

with Tribes and Alaska Native Villages on water issues.¹¹ The action plan focuses on promoting robust coordination and meaningful consultation with Tribal nations; strengthening and expanding water governance in Indian country; increasing infrastructure funding and capacity development; and honoring the federal trust responsibility and protecting Tribal reserved rights related to water resources. In addition, the EPA is renewing its commitment to the Tribal Infrastructure Interagency Task Force by re-establishing the Memorandum of Understanding among the federal partners, thereby strengthening the federal government's commitment to deliver sustainable drinking water, wastewater and solid waste infrastructure to tribal communities.

Interagency Coordination on Water-Related Climate Impacts

The impacts of climate change are affecting people in every region of the country, threatening lives and livelihoods and damaging infrastructure, ecosystems and social systems. Certain communities and populations are particularly vulnerable to these impacts, including low-income communities and communities of color, children, the elderly, tribes and indigenous people. The EPA is proactively incorporating climate adaptation planning and risk reduction throughout our programs, including new investments in water infrastructure, with a particular focus on advancing environmental justice. The agency is working closely with its federal partners through several interagency platforms, including the White House Coastal Resilience Interagency Work Group, Flood Resilience IWG, Drought IWG, the Water Subcabinet and the America the Beautiful Initiative, to develop and coordinate strategies to address these climate impacts. The EPA is actively consulting and engaging with states, tribes, local governments, environmental justice organizations and many others across the country to ensure that its plans to embed climate and environmental justice considerations across its work reflect the diverse needs of all stakeholders.

Water scarcity, exacerbated by climate change and other factors, is a crisis in tribal nations and in states in the great plains and across the west. Water allocations are at historic lows in many areas, creating an urgent need to minimize the impacts of the drought and develop long-term plans to facilitate both conservation and sustainable economic growth. If enacted, the bipartisan Infrastructure Investment and Jobs Act will provide more than \$7 billion to strengthen and build more resilient water infrastructure in the western U.S. It will support a range of programs, including efforts to promote water reuse, recycling, storage, desalination, as well as infrastructure rehabilitation and replacement. In addition, the Administration's new Interagency Working Group on drought is identifying immediate, short-term financial and technical assistance opportunities. The Working Group is partnering with state, local and tribal governments to address the needs of communities suffering from drought-related impacts. The Administration has also committed to strengthening the National Drought Resilience Partnership. Formed in 2013, the NDRP brings together multiple federal agencies to build long-term drought resilience, including developing innovative science-driven actions to address water supply challenges.

Issues Related to PFAS Contamination

¹¹ U.S. EPA (2021, October 14). *Strengthening the Nation-to-Nation Relationship With Tribes to Secure a Sustainable Water Future*; available online at <https://bit.ly/3C8eG77>.

Addressing Per- and polyfluoroalkyl substances chemicals is an important component of Administrator Regan's work to center EJ in the EPA's mission. One of his earliest actions was to establish the EPA Council on PFAS, an internal body comprised of senior agency leaders who are charged with developing a whole-of-EPA plan to accelerate progress on PFAS.¹²

The agency recognizes that for many communities, action to address PFAS has been slower than many would like to see. The EPA hears and understands these concerns and is working now to remedy this serious issue. On October 18, 2021, Administrator Regan released a PFAS Strategic Roadmap for 2021-2024 that sets timelines by which the EPA plans to take specific actions and commits to bolder new policies to safeguard public health, protect the environment and hold polluters accountable.¹³

The NEJAC's first request in its August 2019 letter to Administrator Wheeler on PFAS was for EPA staff to meet with frontline communities in each EPA region to understand the PFAS health impacts and concerns beyond regulatory issues. In the new PFAS Strategic Roadmap, the EPA commits to "engage directly with affected communities in every EPA region to hear how PFAS contamination impacts their lives and livelihoods." The EPA also looks forward to working with members of the NEJAC, particularly members of the PFAS Subcommittee, as the agency works to implement the roadmap.

The Strategic Roadmap made several commitments, several of which are already underway. For example:

- Under the Safe Drinking Water Act, the EPA has the authority to set enforceable National Primary Drinking Water Regulations for drinking water contaminants and can require monitoring of public water supplies. To date, the EPA has regulated more than 90 drinking water contaminants but has not established national drinking water regulations for PFAS chemicals. In March 2021, the EPA published the Fourth Regulatory Determinations, including a final determination to regulate PFOA and PFOS in drinking water. The EPA is now developing a proposed NPDWR for these chemicals. As the EPA undertakes this action, the agency is also evaluating additional PFAS and considering regulatory actions to address groups of PFAS.
- Effluent Limitations Guidelines are a powerful tool to limit pollutants from entering the nation's waters. ELGs establish national technology-based regulatory limits on the level of specified pollutants in wastewater discharged into surface waters and into municipal sewage treatment facilities. The EPA has been conducting a PFAS multi-industry study to inform the extent and nature of PFAS discharges. Based on this study, the EPA is taking a proactive approach to restrict PFAS discharges from multiple industrial categories. Our multi-faceted approach entails:
 - Undertaking rulemakings to restrict PFAS discharges where we have the data to do so – including PFAS manufacturers, metal finishing, and electroplating.

¹² The NEJAC: (2019, August 14). *Letter to Administrator Andrew Wheeler re: Recommendations to Strengthen the PFAS Action*; available online at <https://bit.ly/3vExZTa>

¹³ The PFAS Strategic Roadmap and related materials are available online at <https://bit.ly/3jzExgU>.

- Launch detailed studies on facilities where we have preliminary data on PFAS discharges, but the data is currently insufficient to support a potential rulemaking. These include electrical and electronic components, textiles and landfills.
- Initiate data reviews for industrial categories for which there is little known information on PFAs discharges, including leather tanning, plastics molding and forming and paint formulators.
- Monitor industrial categories where the phaseout of PFAS is projected by 2024, including pulp and paper manufacturers and airports.
- The EPA is developing a Notice of Proposed Rulemaking to designate PFOA and PFOS as CERCLA hazardous substances. Such designations will require facilities across the country to report on PFOA and PFOS releases that meet or exceed the reportable quantity assigned to these substances. The hazardous substance designations will also enhance the ability of federal, state, tribal and local authorities to obtain information regarding the location and extent of releases. The EPA or other agencies could also seek cost recovery or contributions for costs incurred for the cleanup.
- In March 2021, Administrator Regan directed that the EPA pull down and call for a review under the agency's Scientific Integrity Policy of the PFBS (Perfluorobutanesulfonic acid, a PFAS compound) Toxicity Assessment, released in the last days of the previous administration. The EPA then issued an updated toxicity assessment for PFBS that reflects the best available science, involved extensive federal, state, and public engagement, and is critical to the EPA efforts to help communities impacted by PFAS.

In the pages that follow, we provide more detail on specific PFAS issues of interest to the NEJAC.

PFAS and the Toxic Substances Control Act (TSCA)

TSCA Section 5 requires the EPA to review new chemicals – including new PFAS – before those chemicals can enter U.S. commerce. Where risks to human health or the environment are identified, including risks to potentially exposed or susceptible subpopulations, or there is insufficient information on a new chemical, TSCA requires the EPA to act to appropriately manage those risks. The EPA is keenly aware of the concerns associated with PFAS and is committed to ultimately preventing or reducing any risks identified through this statutory process.

TSCA: National PFAS Testing Strategy

The EPA needs to evaluate a large number of PFAS for potential human and ecological effects. Most of the hundreds of PFAS currently in commerce have limited or no toxicity data, and if the EPA attempts to research them one at a time, it will be impossible for the EPA to expeditiously understand, let alone address, the risks these substances may pose to human health and the environment. To address this data gap and fundamentally advance our understanding of these

substances, the EPA released a National PFAS Testing Strategy to deepen understanding of the impacts of PFAS, including potential hazards to human health and the environment.¹⁴ This strategy will help the EPA identify and select PFAS for which the agency will require testing using TSCA authorities. The EPA released this strategy on October 18, 2021, as part of the PFAS Strategic Roadmap.

TSCA: New Strategy for Reviewing and Managing Low Volume Exemptions

In April 2021, Administrator Regan directed that the EPA implement a new strategy for reviewing and managing low volume exemptions requests for PFAS to protect all Americans and the environment from the potentially harmful effects of these chemicals.

Historically, some new PFAS have been allowed to enter the market through LVEs. Due to the scientific complexities associated with assessing PFAS, and the hazard potential associated with various sub-classes of PFAS, it is challenging to conduct an appropriately robust review of LVE requests for PFAS in the 30 days the TSCA regulations allow. TSCA regulations provide for the denial of LVE requests when the EPA finds the chemical in question may cause serious human health effects or significant environmental effects, or when issues concerning toxicity or exposure require review that cannot be completed in 30 days.

While the EPA will consider each LVE application individually, the EPA generally expects that pending and new LVE submissions for PFAS would be denied. Doing this will allow the agency additional time to conduct a more thorough review through the pre-manufacture notice review process and, as appropriate, put measures in place to mitigate the potential risk of these chemicals as the agency determines whether to allow them to enter commerce.

TSCA: Low Volume Exemption Stewardship Program

In July 2021, the EPA announced a stewardship program to encourage the voluntary withdrawal of previously granted low volume exemptions for PFAS. The goal of the PFAS LVE Stewardship Program is to stop the ongoing manufacture of PFAS under previously approved LVEs that have not gone through the full TSCA pre-manufacture review.

There are approximately 600 PFAS with currently granted LVEs. Through this program, the EPA intends to work with trade associations, non-governmental organizations and companies to encourage voluntary withdrawal of the LVEs. To participate in the program, companies with previously granted PFAS LVEs may choose to voluntarily withdraw their LVEs and certify that they will no longer manufacture or import that PFAS. Alternatively, companies may choose to voluntarily withdraw their LVE following submission and review of a pre-manufacture notice, which will provide for a robust safety review and the imposition of appropriate and enforceable protections for human health and the environment. The EPA will recognize program participants on its website.

TSCA: Extensive PFAS Data Collection

¹⁴ U.S. EPA (2021, October 18). *National PFAS Testing Strategy: Identification of Candidate Per- and Polyfluoroalkyl Substances for Testing*; available online at <https://bit.ly/3Ccibtm>.

In June 2021, the EPA proposed a rule that would require reporting on PFAS manufactured in the U.S. (including importers) in any year since 2011 to report information related to chemical identity, categories of use, volumes manufactured and processed, by products, environmental and health effects, worker exposure and disposal. The proposed rule will help the EPA better understand the sources and quantities of PFAS manufactured in the United States and support the agency's PFAS research, monitoring, and regulatory efforts. Once finalized, this rule would be the first targeted effort under TSCA to collect information on the manufacture of PFAS and will provide the EPA with the most comprehensive dataset of PFAS manufactured in the United States.

PFAS and the Toxics Release Inventory (TRI) Program

Section 7321 of the FY 2020 NDAA immediately added 172 PFAS to the list of toxic chemicals subject to reporting under section 313 of the Emergency Planning and Community Right-to-Know Act and section 6607 of the Pollution Prevention Act. The NDAA also set a manufacture, processing, and otherwise use reporting threshold of 100 pounds for each PFAS added to the list.

In July 2021, the EPA directed the release of preliminary data for the first-ever reporting on PFAS added to the TRI by the 2020 NDAA. The preliminary PFAS data received by the agency include a total of 91 TRI reporting forms for 43 discrete PFAS filed by 39 individual facilities. The preliminary data indicate facilities managed more than 700,000 pounds of production-related waste of PFAS during 2020. The EPA is conducting a review and data checks on the preliminary data.

In analyzing the PFAS reporting, the EPA will also include a focused and more rapid effort to provide insights regarding the seemingly limited scope of the reporting, including the types and number of facilities reporting and PFAS reported. The EPA will take the appropriate action depending upon the findings, including compliance assistance, enforcement, or proposing modifications to the TRI reporting requirements for PFAS.

The FY 2020 NDAA also provided a framework for additional PFAS to be added to TRI on an annual basis. For example, for TRI Reporting Year 2021, the NDAA automatically added three PFAS to the TRI list because they are now subject to a significant new use rule under TSCA. On June 3, 2021, the agency issued a final rule that officially incorporates those PFAS into the Code of Federal Regulations for TRI. Per the NDAA requirements, the PFAS additions became effective as of January 1, 2021. Reporting forms for these PFAS will be due to EPA by July 1, 2022, for calendar year 2021 data.

The EPA anticipates future additions of PFAS to the TRI under this framework in the NDAA, e.g., the addition of perfluorobutane sulfonic acid in January 2022 following the EPA's recent publication of an April 2021 toxicity assessment on the chemical. The EPA is also actively considering whether certain additional PFAS meet the EPCRA section 313 listing criteria pursuant to the timeline in section 7321(d) of the FY 2020 NDAA.

PFAS and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In January 2021, the EPA informed the public of testing that determined that fluorinated high-density polyethylene containers that are used to store and transport a mosquito control pesticide product contain PFAS that are leaching into the pesticide product.

Through a coordinated effort with both the Commonwealth of Massachusetts and the pesticide manufacturer, shipment of affected containers of pesticide was voluntarily stopped, and the manufacturer conducted its own testing to confirm the EPA results. In addition, the EPA issued a request for information under TSCA to the company that fluorinates the containers by certain pesticide manufacturers. The TSCA subpoena requested information about the fluorine processes used to treat the containers. As an example, the EPA is actively coordinating with the state of Maryland and registrants to obtain samples and test mosquito control products and their containers for the presence of PFAS, and the EPA will share that information directly with the state.

The EPA also released testing data in March 2021 and outlined next steps to work closely with stakeholders to collect additional information on this issue. Administrator Regan committed to coordinating with the affected entities involved and their supply and distribution chains, pesticide users, the pesticide and packaging industry, and federal, state, and tribal partners as the EPA works through this complex health and environmental issue.

While the agency is early in its investigation, the EPA will use all available regulatory and non-regulatory tools to determine the scope of this emerging issue and its potential impact on human health and the environment. It is important to note that although these types of products should not be a source of PFAS, the data indicates that the amount of PFAS that has entered the environment from the contamination in the containers the agency tested is extremely small.

In sum, these actions are a significant step forward in the EPA's work to meet this crisis head on and exemplify the EPA's commitment to address this issue and a commensurate increase in the tempo and boldness of actions we will take to protect human health and the environment from PFAS.

Issues Related to Ethylene Oxide

Concerning ethylene oxide, the NEJAC has recommended that the EPA use sound science and ensure meaningful involvement of impacted communities its regulatory program. In addition, the NEJAC has asked for more information about the EPA efforts to reduce emissions of this chemical and encouraged the EPA to take prompt regulatory action.¹⁵

Ethylene Oxide and the Clean Air Act

For the Clean Air Act section 112(f)(2) risk reviews, the EPA performs health risk assessments for the CAA-identified hazardous air pollutants. These reviews rely on the best available science and often include toxicity information from the EPA's Integrated Risk Information System

¹⁵ The NEJAC (2019, May 3). *Letter to Administrator Andrew Wheeler re: Recommendation to Regulate Ethylene Oxide to Protect Public Health and to use the Findings and Conclusions of the EPA Integrated Risk Information System Chemical Assessments in Regulatory Determinations*; available online at <https://bit.ly/2XHvdjo>

program. For ethylene oxide, the agency issued an updated IRIS value in 2016 based on the latest science, and notably, recommendations from the agency's Science Advisory Board. Those recommendations were developed over a lengthy 10-year review period, which included two rounds of public comment and two rounds of peer review. The EPA stands by its IRIS assessment for EtO.

The EPA is making steady progress to address EtO from industrial sources of this potent chemical. The agency is working to complete a thorough review of regulations that apply to industries that emit EtO. For each of these complex rules, the agency will work to:

- develop up-to-date, accurate information about emissions from the industries.
- share information with surrounding communities.
- seek public input during the rulemaking process.

Administrator Regan is committed to reviewing and revising rules consistent with the schedule provided in the May 6, 2021, OIG report for these existing regulations, which could result in the following updated rulemakings:

Commercial Sterilizers: Quarter 4, Fiscal Year (FY) 2022

Hospital Sterilizers: Quarter 4, FY 2023

Synthetic Organic Chemicals Manufacturing Industry: Quarter 2, FY 2024

Polyether Polyols Production: Quarter 4, FY 2024

Chemical Manufacturing Area Sources: Quarter 4, FY 2024

The EPA will ensure that robust public engagement and needed information is made available to communities and other stakeholders for all proposed rulemakings.

Administrator Regan has directed the reconsideration of certain aspects of the 2020 air regulation "National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing Residual Risk and Technology Review" in response to administrative petitions. The EPA will issue a Federal Register notice initiating public review and comment, including opportunities to testify at a virtual public hearing. The EPA will carefully review input received on proposed regulatory options before issuing a final rule. In addition, the agency consistently conducts outreach to EJ stakeholders to provide information on upcoming regulatory actions and to provide opportunities for meaningful engagement. The EPA hosts regular calls with EJ leaders where upcoming regulatory actions are shared, and routinely shares write-ups via OEJ's EJ listserv. As appropriate, the EPA will host webinars and schedule additional listening sessions for targeted feedback on EtO.

In addition to regulatory review, the EPA is also providing support to state and territorial air agency partners as they look more closely at emissions in areas that the National Air Toxics Assessment identified as potentially at increased risk of cancer from continuous, 70-year exposure to ethylene oxide in the outdoor air. This work has already led to steps that have reduced emissions at facilities in states such as Georgia and Illinois – faster than the EPA's rulemaking process can provide. The EPA will continue to provide partner agencies support in both follow-up technical work and in their efforts to share information with the public.

EtO and the Federal Insecticide, Fungicide, and Rodenticide Act

The EPA continues to assess potential human health risk that come from working in facilities that fumigate with EtO, living in communities near EtO facilities, and consuming spices with EtO.

The EPA regulates the use of EtO as a fumigant in the sterilization of medical devices and spices, which is considered both a conventional and antimicrobial pesticide under the Federal Insecticide, Fungicide and Rodenticide Act. Currently, there are 18 registered EtO products that are registered for use in commercial sterilization facilities.¹⁶

Risk from Consumption of Spices

In the EtO Draft Risk Assessment from November 2020, the EPA concluded that EtO is not considered a residue of concern for dietary exposure. Data from EtO spice sterilization studies indicate that EtO residues disappear rapidly after sterilization and are unlikely to be found in spices available for consumption.¹⁷ A chronic dietary risk assessment was conducted for the EtO degradate ethylene chlorohydrin using the Dietary Exposure Evaluation Model - Food Consumption Intake Database, which incorporates food consumption data from the U.S. Department of Agriculture National Health and Nutrition Examination Survey, “What We Eat in America.” The resulting chronic exposure estimates to the EtO degradate ethylene chlorohydrin do not exceed the level of concern.

Inhalation Risk

In the EtO Draft Risk Assessment from November 2020, the EPA conducted a qualitative analysis of EtO that cited the 2016 IRIS assessment as well as other assessments. The agency concluded that EtO presents inhalation risks to workers inside of EtO sterilization facilities as well as communities surrounding the EtO sterilization facilities, and that these risks need to be mitigated. The EPA’s priority on the EtO case is to move as efficiently as possible toward mitigation. The EPA intends to propose mitigation measures in the Proposed Interim Decision, which will address risk to workers inside the sterilization facilities. The EPA may also incorporate bystander protection rulemaking into product label language.

Meaningful Engagement with Impacted Communities

To meaningfully engage impacted communities in addressing EtO exposure as an environmental justice issue, the EPA developed a cross-agency approach to conduct outreach and engagement efforts on EtO. Specifically, the EPA will seek public comment on environmental justice

¹⁶ US EPA. *Ethylene oxide: Product Status Information*; Available online at <https://bit.ly/2XIb3G5>; Last updated on December 11, 2016

¹⁷ Regulation.gov. (2020, November 20) *Ethylene Oxide (EtO). Draft Human Health and Ecological Risk Assessment in Support of Registration Review Document ID EPA-HQ-OPP-2013-0244-0023*; available online at <https://www.regulations.gov/document/EPA-HQ-OPP-2013-0244-0023>

concerns upon the publication of the PID during the designated 60-day public comment period, projected for Fiscal Year 2022.

EtO and the Toxics Release Inventory Program

In April 2021, the EPA announced that it will take steps under the Toxics Release Inventory to increase access to environmental information by expanding the scope of TRI reporting requirements to include certain facilities that are not currently reporting on EtO releases.¹⁸ On October 13, 2021, the EPA announced that it is taking a critical first step forward to expand the scope of TRI reporting requirements to include certain contract sterilization facilities that are not currently reporting their EtO releases.

Under the Emergency Planning and Community Right-to-Know Act, the EPA Administrator has discretionary authority to extend TRI reporting requirements to specific facilities based on a chemical's toxicity, the facility's proximity to other facilities that release the chemical or to population centers, any history of releases of the chemical at the facility or other factors that the Administrator deems appropriate.

The EPA has sent letters to 31 facilities providing notice that it is considering requiring those facilities to report EtO releases to the TRI under this discretionary authority. Some of these facilities will receive notice that they may also be required to report ethylene glycol releases to the TRI. Ethylene glycol is produced using ethylene oxide; thus, both chemicals may co-occur at facilities. Ethylene oxide and ethylene glycol have been on the TRI toxic chemical list since its inception in 1987.

Issues Related to Chemical Safety and Pollution Prevention

Safer Choice Program

The NEJAC recommended that the EPA partner with discount retail stores to implement the Safer Choice program at discount retail stores around the county. The NEJAC believes that Safer Choice can be a gateway to adopt comprehensive toxic policies to reduce toxics in their products and increase transparency of information available to the public.¹⁹

Safer Choice helps consumers, businesses and purchasers find products that perform and contain ingredients that are safer for human health and the environment. Safer Choice is an EPA Pollution Prevention program, which includes practices that reduce, eliminate or prevent pollution at its source, such as using safer ingredients in products.

The EPA recognizes the need to reach out to discount retail stores to help them adopt policies that will reduce potentially problematic chemicals in the products they sell, including suggesting that their customers look for Safer Choice-certified products. In 2022, Safer Choice outreach and

¹⁸ US EPA. Toxics Release Inventory Program; available online at <https://bit.ly/3pB6b16>; Website last updated September 22, 2021

¹⁹ The NEJAC (2017, July 31). *Letter to Administrator Scott Pruitt re: Address Toxic Exposures Found At Discount Retail Stores*; Accessible online at <https://bit.ly/3m9PtUc>

partnership activities will add a specific focus on increasing awareness of and access to safer products for people of color and low-income communities.

Safer Choice will work with retailers and product manufacturers to help them develop even more products containing safer chemical ingredients that are easily identified and purchased. Safer Choice will also begin working with organizations that serve communities with EJ concerns to help custodial staff and house cleaning companies fight conditions such as asthma and gain access to safer products. Safer Choice will, through its Partner of the Year Awards, recognize organizations whose work results in the use of safer products in underserved communities, thereby furthering source reduction.

To enhance transparency and to facilitate expansion of safer chemical choices and products, the EPA has included on the program's website a list of non-confidential chemicals that meet the Safer Choice Program criteria and that are allowed in the program's labeled products. In FY 2020, this Safer Chemical Ingredients List contained more than 1,000 safer chemicals, and the EPA will continue to update this list in FY 2022 and FY 2023 as the program evaluates additional chemical ingredients and chemical categories and approves products for the use of the Safer Choice label. This list will be a helpful tool for discount retailers implementing chemical sustainability policies.

TSCA Risk Evaluations

In June 2021, the EPA reversed the previous Administration's decision not to assess air, water or disposal exposures to the general population in TSCA risk evaluations. For seven of the first 10 chemicals evaluated under section 6 of TSCA, the agency determined that the EPA should assess potential risks from these exposure pathways. The EPA is now developing a screening-level approach to conduct ambient air and surface water fence-line assessments to reveal potential exposures to TSCA substances in communities near chemical emitters. The EPA intends to make the procedures and application of the fenceline screening approach available for public comment and peer review early in 2022. For all future risk evaluations, the EPA intends to consistently and comprehensively address potential exposures to potentially exposed or susceptible subpopulations, including fenceline communities. The EPA is also working with tribal partners to better understand unique tribal lifeways and potential tribal exposures to inform risk evaluations under TSCA.

The EPA is committed to developing protective risk management actions for chemicals in a way that is transparent and includes meaningful consultations with communities and other stakeholders. For example, from January to August 2021, the agency conducted formal consultation and coordination with Tribal governments and held public engagements with communities with environmental justice concerns on risk management for nine of the first 10 high-priority chemicals undergoing risk management under TSCA. Participants at these sessions discussed the development of proposed actions under section 6(a) of TSCA to address the unreasonable risks for each chemical. The EPA held 36 consultation sessions and provided plain-language fact sheets on each chemical. These consultations drew more than 400 attendees, with an average of 20 participants providing comments during each session. Chemical risk managers

are using the feedback garnered during these consultations in the development of the risk management regulations.

Worker Protection Standards

The NEJAC conveyed the need for the EPA to commit resources to actively involve farmworkers in the development of Worker Protection Standards training materials and to convene with farmworkers to make information culturally and linguistically appropriate. The NEJAC also wants to ensure that WPS decision-making and provisions protect farmworkers, their families, and agricultural communities.²⁰

On June 22, 2018, the EPA announced the availability of training materials covering the expanded content in the 2015 Worker Protection Standards in the Federal Register.²¹ This notice triggered the WPS requirement that all trainings must include the new topics by December 19, 2018.

Initial training materials were developed through the Pesticide Education Resources Collaborative cooperative agreement with University of California Davis in partnership with Oregon State University.²² The PERC Advisory Board consists of a diverse group of members from academia, farmworker advocacy and industry. These materials were informed by this group and the content reviewed and approved by the EPA, including EPA-approved trainings that contain the content required by the 2015 revised WPS. There are also new EPA-approved training materials developed by other organizations. Some of these materials are also available on the PERC website, but some are proprietary. The EPA has also developed a variety of additional educational materials, videos and outreach content over the past few years that have been informed by focus groups with farmworkers, such as updated pesticide safety posters that comply with WPS requirements.

Additional WPS efforts include the following:

- **Cooperative Agreement with the Association of Farmworker Opportunity Programs:** The EPA has a cooperative agreement with the Association of Farmworker Opportunity Programs to support the development of a suite of bilingual, low-literacy trainings and supplemental materials to address the most critical health and safety hazards in agricultural settings. This program is continually evolving to meet the needs of the farmworkers they serve. AFOP accomplishes this by gathering data through evaluations from workers and trainers to appraise the program and to track the efficacy of information and topics, as well as the format and manner of delivery of the content.

²⁰ The NEJAC (2017, July 31). *Letter to Administrator Scott Pruitt re: Worker Protection Standard Regulation to Protect Farmworkers and Their Families from Toxic Pesticides*; Available online at <https://bit.ly/3nqkfrn> and the NEJAC's: (2018, December 18). *Re: Letter to Acting Administrator Andrew Wheeler re: Efforts to Rescind Portions of the Agricultural Worker Protection Standard and the Certification of Pesticide Applicators Rule*; available online at <https://bit.ly/3GuMw99>

²¹ Federal Register Notice (2018, June 22). *US EPA, Announcement - Pesticides; Agricultural Worker Protection Standard; Notification of Availability*; (83 FR 29013); Available online at: <https://bit.ly/3GmRbtp>

²² Pesticide Education Resources Collaborative (2019) *Home Page*; Available online at <http://pesticideresources.org/>

- **Stakeholder Engagement:** The EPA frequently meets with stakeholder groups to address concerns on education and outreach involving the WPS. The EPA recently convened a workgroup (Farmworker and Clinician Training Workgroup) under the Pesticide Programs Dialogue Committee to discuss evaluation of WPS activities, grants and program, and how and when EPA should reach out to stakeholders, including worker community-based organizations, in their development of analyses on the appropriateness and effectiveness of WPS activities.
- **Designated Representative:** In March 2019, the Pesticide Registration Improvement Extension Act of 2018 directed the EPA to carry out its 2015 revisions to the WPS, which includes the designated representative provision.²³ This provision enables a worker or handler to designate someone to seek pesticide application and safety information on their behalf and extends into agriculture a right that workers in other industries have had for many years. PRIA4 included a provision for the Government Accountability Office to conduct a study on the use of the designated representative provision. The GAO published its report on January 15, 2021.²⁴ The EPA is presently addressing GAO's recommendations by:
 - Working directly with co-regulators and others during the next 12-18 months to solicit comment and information on the use of the designated representative provision to determine whether farmworkers are using the provision and whether agricultural establishments are complying with the WPS requirements.
 - Providing updated content, guidance and explanation of the intent of the designated representative provision by posting information on the EPA website by January 2023.
 - The EPA has no plans to revisit or revise the designated representative through regulation at this time. The agency is fully implementing and enforcing the designated representative provision.
- **Application Exclusion Zones:** PRIA4 permitted the EPA to proceed with revisions to the AEZ requirements in the 2015 WPS. On October 30, 2020, the EPA issued a final rule revising the AEZ provisions under the WPS. The 2020 Rule, originally set to go into effect on December 29, 2020, made modifications to the 2015 WPS/AEZ requirements.²⁵

In December 2020, two petitions were filed in the U.S. District Court for the Southern District of New York and in the U.S. Second Circuit Court of Appeals challenging the 2020 Rule (now consolidated as case number 20 Civ. 10642).²⁶

²³ US EPA. *PRIA Overview and History*; available online at <https://bit.ly/3vHIQvr>. Website last updated on June 3, 2021

²⁴ Government Accountability Office (GAO) (2021, January). *Report: Farmworkers Additional Information Needed to Better Protect Workers from Pesticides Exposure*; available online at <https://www.gao.gov/assets/gao-21-63.pdf>

²⁵ US EPA (2020) *Announcement Worker Protection Standard Application Exclusion Zone: Revisions to the AEZ Requirements*; accessible online at <https://www.epa.gov/pesticide-worker-safety/worker-protection-standard-application-exclusion-zone>; Website last updated: August 16, 2021

²⁶ US District Court Southern District of New York (December 16, 2020). *US EPA; and Andrew Wheeler, in his official capacity as Administrator of the United States Environmental Protection Agency*; 20 Civ 10642; available online at https://www.epa.gov/sites/default/files/2020-12/documents/2020-12-16_states_complaint.pdf

At this time, the 2020 AEZ Rule has not been implemented, as a preliminary injunction has stayed the effective date of the 2020 Rule and enjoined the EPA from implementing the 2020 revisions. Therefore, until further notice, the 2015 WPS remains in effect with no changes to the AEZ provisions.

Concurrently, the EPA is reviewing the 2020 AEZ Rule per the Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.²⁷

- **Minimum Age Requirements:** In addition to the designated representative provision, PRIA4 directed the EPA to carry out its 2015 revisions to the WPS, including the minimum age requirements. The EPA is fully implementing and enforcing the minimum age requirements, and there are no plans to revisit this requirement.
- **Certification of Pesticide Applicators:** PRIA4 also directed the EPA to implement the 2017 Certification of Pesticide Applicators Rule without revision through October 1, 2021. The EPA is fully implementing 40 CFR 171. All certifying authorities have submitted their certification plans to the EPA by the regulatory deadline of March 4, 2020. All plans are currently undergoing EPA review to meet the regulatory approval date of March 4, 2022.

Issues Related to the Advancement of Scientific Data and Tools to Support Environmental Justice

EJSCREEN and EnviroAtlas

The August 14, 2019, NEJAC letter raised concerns about data limitations due to the lack of completeness for the EPA's mapping tools in terms of areas of coverage for those tools. The NEJAC identified EJSCREEN and EnviroAtlas as examples with limited data in certain areas of the United States, its territories, and federally recognized tribal lands. Below is a detailed response to this letter including responses from questions presented during the NEJAC public meeting held on August 18-19, 2021.²⁸

How is EnviroAtlas different from EJSCREEN?

While both EnviroAtlas and EJSCREEN provide geospatial information, they are fundamentally different tools. EJSCREEN is an environmental justice screening and mapping tool that uses standard and nationally consistent data to highlight places that may have higher environmental burdens and vulnerable populations. EnviroAtlas is an interactive web-based set of information, tools, data and maps that help decision-makers inform policy and planning by demonstrating connections between people, nature, health and the economy.

²⁷ The White House (2021, January 20). *Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*; available online at <https://bit.ly/3GlZaqT>

²⁸ The NEJAC (2019, August 14) *Letter to Administrator Andrew Wheeler re: Data Limitations on EPA Mapping Tools*; available online at <https://bit.ly/2ZksX2z>

EJSCREEN combines environmental and demographic indicators to create EJ indexes. An EJ Index is a way of combining demographic information with a single environmental indicator – such as proximity to traffic – that can help identify communities that may have a high combination of environmental burdens and vulnerable populations. EJSCREEN offers a variety of powerful data and mapping capabilities that enable users to access the EJ indexes and other environmental and demographic information, at high geographic resolution, across the entire country, displayed in color-coded maps and standard data reports. These maps and reports show how a selected location compares to the rest of the nation, EPA region or state. Assessing EJSCREEN information is a useful first step in understanding or highlighting locations that may be candidates for further review or outreach based upon the likelihood of EJ concerns and issues.

EnviroAtlas allows users to access, view and analyze diverse data that can help address a wide array of questions, including those focusing on ecosystem services and how their many benefits affect human health and well-being. The EnviroAtlas interactive map lets users overlay nationally consistent and high-resolution data of different types, backed by informational fact sheets and extensive metadata. Built-in analysis tools allow users to graphically compare data across geographies, map upstream and downstream watershed networks, and explore changes in climatic conditions, among other functions. In addition to the variety of data in EnviroAtlas, users can explore the interconnections between humans and the environment using the Eco-Health Relationship Browser tool and associated literature review. EnviroAtlas also provides training modules, guides and educational lesson plans. In combination, EnviroAtlas tools and resources help citizens of all ages understand their surrounding environment, explore important human-environment connections and make informed decisions about the places where they live, learn, work and play.

What are the development plans for the tools?

The EPA has continued to develop EnviroAtlas to increase its capabilities and value for public, community and educator use. EnviroAtlas provides geospatial data, easy-to-use tools, and other resources related to ecosystem services (such as clean air and clean water), their chemical and non-chemical stressors and human health.²⁹

EnviroAtlas provides hundreds of environmental data layers, as well as United States Census and other demographic data, for the contiguous U.S. All communities and Tribal lands in the contiguous U.S. are covered. EnviroAtlas also provides additional high-resolution data for featured populated places. The EPA acknowledges, however, that not all data contained in EnviroAtlas covers all areas of the United States at the same resolution and the agency is committed to continuously evaluating methods to expand data coverage and resolution data coverage especially for rural areas, Tribal lands, and the non-contiguous parts of the United States.

The EPA added GIS data layers to EnviroAtlas for Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. These include demographic data drawn from U.S. Census data. A subset of the full suite of environmental data layers that are available for the contiguous U.S. have also been

²⁹ US EPA; *EnviroAtlas*; available online at <https://www.epa.gov/enviroatlas>; Website last updated on September 14, 2021

added to EnviroAtlas for Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. As data become available, the EPA will continue to develop data layers for Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. The EPA is not yet able to develop the data layers for Guam or Samoa.

The EPA has added, subject to data availability, approximately 100 layers based on high-resolution data for featured populated places. The high-resolution data in EnviroAtlas draws from one-meter resolution land cover data (i.e., one data point for each square meter pixel on the ground), census data and models. The 100 high-resolution layers cover 1,400 cities and towns on 30 U.S. urbanized community areas covering a population of more than 65 million or 21 percent of the U.S. population.³⁰ These urbanized community areas range in size from Woodbine, Iowa, at 8.5 square miles and a population <2,000 to greater Chicago, Illinois, at 5,650 square miles with a population of 9.8 million as of the 2010 Census.

The EPA will continue to develop training materials so that all communities can use EnviroAtlas. A new feature has been added to EnviroAtlas to make it easy for users to zoom in to Alaska, Hawaii, Puerto Rico or the U.S. VI and see all available data. All data layers in EnviroAtlas include data for Tribal lands, and a Tribal lands boundary layer. The EPA will continue to include all Tribal lands in the data layers.

The EPA will also continue to update EJSCREEN on an annual basis with the most current and comprehensive data available. Recognizing there are geographic areas for which some EJSCREEN data is lacking, the EPA is continually investigating data sources to fill these gaps. The EPA plans, for example, to integrate pertinent data from the Demographic Profiles released by the U.S. Census Bureau for the U.S. territories as soon as that data is released, which will enable the agency to generate EJSCREEN scores for the territories where there is also pertinent environmental data.

The EPA is focused on building mapping tools and solutions that help to meet the needs of all Americans. Towards this end, the EPA has continued to focus on increased capabilities and relevant datasets of tools such as EnviroAtlas and EJSCREEN. This includes improving data on Tribal lands, non-contiguous parts of the United States, rural communities, and territories. The EPA's tools use demographic, health, environmental, and other data from a variety of sources, but the agency acknowledges that not all datasets cover all areas of the United States equally. Some of the datasets are built by the EPA and many others are not. The EPA is committed to improving data coverage for EPA-produced datasets.

President Biden acknowledged these challenges and made calls to improve data throughout the federal family in Executive Order 13985. It calls for the establishment of an Equitable Data Working Group and notes that *“this lack of data has cascading effects and impedes efforts to measure and advance equity. A first step to promoting equity in Government action is to gather the data necessary to inform that effort.”* The EPA has been actively examining how the Agency can improve data collection, deficiencies, and dissemination through the EPA Equitable Data Working Group.

³⁰ US EPA; *Municipalities within EnviroAtlas Boundaries*; available online at <https://www.epa.gov/enviroatlas/municipalities-within-enviroatlas-boundaries>; Website last updated on: March 26, 2021

A few different issues have created difficulties in mapping in Tribal lands, non-contiguous parts of the United States, rural communities, and territories. With respect to the demographic data, the U.S. Census does not collect the American Community Surveys in the territories, which makes obtaining reliable demographic information difficult. Additionally, there is a trend of underreporting in Tribal and immigrant communities. Rural areas are also often sparsely populated, potentially causing small pockets of disadvantaged communities and people with disabilities to be missed. Together, these limitations in demographic data reduce the effectiveness of tools like EnviroAtlas and EJSCREEN to identify vulnerable populations facing higher pollution burdens.

Likewise, obtaining reliable environmental data for the outlying and rural areas presents its own challenges. Many rural areas face environmental challenges, such as pesticide use and application, animal feeding operations and others for which there are no nationally consistent datasets, as data are tracked and managed by the individual states. Additionally, the territories do not have the same network of monitors and methods of measuring and tracking pollution. This makes mapping the issues and comparing them to standards in the states impossible. The EPA has been exploring ways the agency can use remote sensing data from satellites to fill the gaps left in the monitoring networks to better represent air quality issues in outlying areas, such as Alaska and the territories.

Both EnviroAtlas and EJSCREEN have always included a boundary layer for federally recognized Tribal lands. However, the EPA will expand the available mappable data on tribes. The EPA is in the process of updating this Tribal map to include American Indian off-reservation trust lands, Oklahoma Tribal statistical areas, and other federally recognized Tribes (without land in federal status, reservation, or trust). The EPA is also adding other areas of tribal interest in the EPA mapping applications (though they will appear separate from the federally recognized Tribal lands), including state recognized American Indian reservations, Alaska native regional corporations and Hawaiian homelands.

Additionally, OEJ is currently developing resources on environmental justice in rural communities. This is both in recognition of the fact that much of the early push for EJ was rooted in rural spaces, as well as the recognition that rural lands provide most of the nation's food, energy, drinking water and many other critical resources. Advancing EJ in rural places requires unique approaches and an understanding of the nuances particular to rural EJ issues. It is the EPA's hope that the agency can more fully incorporate these unique approaches and nuances into tools to better represent rural issues.

Moving forward, the EPA hopes to continue to work with the NEJAC to ensure that the agency fully considers all U.S. locations in its mapping applications and to integrate map layers that are critical to understanding the pollution burden impacting human health and the environment in these communities.

Has the use of EnviroAtlas to support communities been evaluated by the community users or recipients of information developed using EnviroAtlas?

Both the EnviroAtlas and EJSCREEN teams collect feedback from community users on an ongoing basis. User feedback is critical to the tools' development and is used to help direct data and functionality enhancements. There are several mechanisms by which feedback from community users is collected:

- Solicited informally during all workshops, trainings, and other presentations.
- Solicited as part of OMB-approved surveys conducted after each training/workshop/presentation.
- Users are encouraged to submit feedback via email and "Contact Us" webforms.
- Users are encouraged to submit feedback via a voluntary form used when users plan to download data; data download is one of three data access mechanisms available to users.
- The EnviroAtlas Team works with targeted communities of users (e.g., the Brownfields community, Chesapeake Bay community) to solicit feedback and develop targeted materials.

Prior to its initial public-facing launch, the EnviroAtlas team conducted beta-testing with more than 800 beta-testers. User feedback is incorporated prior to final versions being released. Approximately 36 percent of EnviroAtlas users are returning users, indicating the user community finds the tool useful. The EPA will continue to enhance and develop EnviroAtlas and EJSCREEN based on tracking the use of existing data layers and user search information for future data layers. For instance, the EnviroAtlas Team analyzes Google Analytics data that gives the agency a great idea of how much EnviroAtlas is being used, which parts of it are being used the most, which maps garner the most interest, and which sectors (e.g., industry, states, the EPA, other federal agencies, NGOs, universities, K-12 schools, local government, international users, etc.) are using the EnviroAtlas the most.

Pollution Monitoring in Communities

The September 29, 2017, NEJAC letter introduces the *Recommendations and Guidance for EPA to Develop Monitoring Programs in Communities* report provided to the EPA as guidance for how the agency can ensure that monitoring information required by permit or settlement is accessible by the local community and useful to the community. The NEJAC recommendations for a good community monitoring program include the collection of timely and useful data, providing accessible and accurate data, delivering monitoring reports in ways most accessible to the affected community and building community capacity.³¹

The EPA's Office of Research and Development has used research-grade measurements to study issues such as near-road air pollution, near-railyard air pollution, and fence-line monitoring near refineries. ORD's research program has included intramural research and extramural challenge grants that address the development of sensors and data visualization for air and water quality monitoring and for use in community science. Advances in sensor technology have enabled an

³¹ The NEJAC (2017, September 29). *Report to Administrator Scott Pruitt re: Recommendations and Guidance for EPA to Develop Monitoring Programs in Communities*; available online at <https://bit.ly/3pAwPpRi>

expansion of direct community member participation in air measurement studies. The EPA has made remote sensing (satellite) data publicly accessible through data visualization software.

Recently, ORD has partnered with EPA Regions 2, 5, 9 and 10 to pilot air sensor loan programs. ORD has begun advising Region 2 on the sensor loan program, while Regions 5, 9 and 10 will begin lending sensors pending ongoing pandemic issues and results will be evaluated for a more extensive program. The regional partners have been trained by ORD on how to use the sensors and implement the other materials developed (e.g., lesson plans, FAQs, resource guide) and look forward to making air sensors available to communities. ORD is also making all the resources for these programs available on the Air Sensor Toolbox for anyone to use.

In addition, Region 4 has been active in expanding the use of air sensor technologies through a separate ORD-supported project that is building and deploying air sensor collocation shelters with several air monitoring agencies within the region. The shelters will be deployed at official air monitoring sites, and they provide a place where Tribes, community groups, researchers, and individuals can bring their air sensors to operate them side-by-side with the regulatory monitors.

The EPA is collaborating with others to advance tools and other resources to inform communities, such as Bloomwatch, which uses crowdsourcing to help identify harmful algal blooms.³² We are also engaging the private sector to develop new technologies to address issues of concern to communities. An example is the Advanced Septic System Sensor Challenge to develop affordable sensors to monitor septic system operation.

There are three ways citizen scientists can get involved in monitoring for cyanobacteria:

1. through the Cyanobacteria Monitoring Collaborative: crowdsourcing to find and report cyanobacteria blooms through the *bloomWatch App*³³
2. mapping cyanobacteria to help understand where and when cyanobacteria species occur through *cyanoScope*³⁴
3. monitoring cyanobacteria populations over time to help track seasonal patterns of cyanobacteria through *cyanoMonitoring*.³⁵

ORD is periodically called upon to provide technical support, including at Tribal and community levels. For example, ORD is working with the Inupiat Community of the Arctic Slope (Alaska) to identify PFAS present in water, sediment and fish tissue.

For more information about ORD Monitoring projects, please refer to Table 1 below.

³² Cyanobacteria Monitoring Collaborative; *Homepage*; available online at <https://cyanos.org/>; Website accessed on September 21, 2021

³³ Bloomwatch App; *Crowdsourcing to Find and Report Potential Cyanobacteria Blooms*; available online at <https://cyanos.org/bloomwatch/>

³⁴ CyanoScope; *Mapping Cyanobacteria one side at a time*; available online at <https://cyanos.org/cyanoscope/>

³⁵ Cyanomonitoring; *Professionals and Trained Citizen Scientist Monitoring Surface Water for Cyanobacteria*; available online at <https://cyanos.org/cyanomonitoring/>

Table 1. Additional information regarding various ORD monitoring projects mentioned is provided in this table.

The Village Green project was a community-based research effort to demonstrate near real-time air monitoring technology, engage the public in learning about local air quality and collect high-quality data for research by developing and installing self-powered park benches that were embedded with air quality and meteorological sensors to display live-stream data. (2014-2019)³⁶

In the Kansas City Transportation and Local-Scale Air Quality Study (KC-TRAQS), EPA scientists worked with the community to deploy stationary, mobile and portable measurement technologies to provide comprehensive air quality monitoring in an area with a complex mixture of air pollution from highways, railways, and industry. (2017-2019)³⁷

The EPA collaborated with the City of Louisville Metro Air Pollution Control District on a study that used novel Next Generation Emissions Measurement systems to measure hazardous air pollutants, including select volatile organic compounds, in the vicinity of Rubbertown's industrial facilities. (2017-2018)³⁸

Data shared with community members led to a follow-on project: the development of the 'Odor Explore' mobile app, which will include additional measurements to better understand the causes of odors in the community. (2021 - ongoing)³⁹

In the Wildfire-Advancing Science Partnerships for Indoor Reductions of Smoke Exposures Study, EPA scientists are partnering with the Missoula City-County Health Department in Montana, University of Montana, and the Hoopa Valley Tribe in California to measure air pollutants during periods when smoke episodes are anticipated. The team is analyzing data collected both indoors and outdoors and working with the communities to assess the effectiveness of air cleaning technology performance including low-cost and DIY methods. (2019 – ongoing)⁴⁰

In August 2020, the EPA and the U.S. Forest Service launched a pilot program to include data from low-cost PurpleAir sensors on the AirNow Fire and Smoke map. EPA scientists developed a correction factor following numerous experiments to make data from the PurpleAir sensors comparable to regulatory grade instruments. Addition of these data significantly increased the temporal and spatial information available to the public regarding areas impacted by wildland fire smoke.⁴¹

³⁶ US EPA (2019, May 7) *Village Green Project Air Monitoring Stations A Success*; available online at <https://www.epa.gov/sciencematters/village-green-project-air-monitoring-stations-success>

³⁷ US EPA; *Kansas City Transportation and Local-Scale Air Quality Study*; available online at <https://bit.ly/3BbPrj1>; Website last updated: June 11, 2021

³⁸ US EPA; (2021, February 9). *Next Generation Emission Measurements Help Understand Air Pollutants in Rubbertown Industrial Area of Louisville, Kentucky*; available online at <https://bit.ly/2ZskXMH>; Website Last Updated on July 8, 2021

³⁹ US EPA, *Odor Explore: A Citizen Science Project Using a Mobile App and New Measurement Approaches*; available online at <https://bit.ly/3Gm3Lco>; Website last updated on July 29, 2021

⁴⁰ US EPA, *Wildfire Study to Advance Science Partnerships for Indoor Reductions of Smoke Exposures*; available online at <https://bit.ly/3Bc9nSS>; Last Updated on September 14, 2021

⁴¹ US EPA, *Technical Approaches for the Sensor Data on the AirNow Fire and Smoke Map*; accessible online at <https://bit.ly/3jBwb8J>; Website last updated August 3, 2021

Table 1. Additional information regarding various ORD monitoring projects mentioned is provided in this table.

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| ORD has initiated a new sensor and monitor loan program to support communities and firefighting personnel during wildfire events. This program is titled “Wildfire Smoke Air Monitoring Response Technology lot project” and includes loans of Purple Air and ThingyAG sensors, as well as the Vehicle Add-on Mobile Monitoring Systems, which are loaned to air agencies or other support staff working at fire incident locations to develop better data that can be provided to communities. (2020 – ongoing) ⁴² |
| Village Blue is a joint EPA/USGS effort to apply water quality sensors to waterbodies and share the real-time water quality data via a website. The first project, Village Blue-Baltimore Harbor was conducted from 2017-2019, while more recently, the Village Blue-Lake Pontchartrain project was set up in 2021 and is currently active. The water quality parameters evaluated in the current effort include algae, chlorophyll, turbidity, dissolved oxygen, nitrate, temperature and pH. (2019-2019, 2021 – ongoing) ⁴³ |
| The Cyanobacteria Assessment Network Application is a mobile app that provides users with access to cyanobacterial bloom satellite data for more than 2,000 of the largest lakes and reservoirs in the US. The app was designed to assist water quality managers in identifying and managing blooms and is also available to the general public. This app developed out of the CyAN Project, which is a joint effort by NASA, NOAA, USGS and EPA. (2017 – ongoing) ⁴⁴ |
| The EPA ORD and Region 1 worked on a team to create the Cyanobacterial Monitoring Collective, which supports three coordinated monitoring projects to locate and understand harmful cyanobacteria. One of the tools, Bloomwatch, engages the public through crowdsourcing to find and report where potential cyanobacteria blooms appear. The second tool, cyanoScope, uses modern technologies and a social approach to learn more about cyanobacteria and their distribution. The third project, the cyanoMonitoring program goes beyond cyanobacteria bloom events to monitor cyanobacteria populations over time, using a long-term systematic approach to understanding how cyanobacteria respond to environmental conditions to learn how and why problems may occur. (2017 – ongoing) ⁴⁵ |
| Sensor Pod Loan Trial for Investigating Regional and Community Air Pollution: the EPA regions and the communities they serve want to understand the pollutant concentrations in the air they breathe and want to be aware of potential pollution exposures in microenvironments where they live and work. Fixed regulatory monitoring networks might not be able to capture these local-scale conditions. This project will give regions (and/or their local partners) the ability to investigate local and regional air quality using lower cost sensors through a sensor pod loan trial. With the results, ORD will be able to assess the need for a larger and more permanent program and the success of the actual sensor technology for future projects. The |

⁴² AirNow, *Fire and Smoke Map* (Version 2.0) accessible online at <https://fire.airnow.gov/>; Website latest updated on September 21, 2021

⁴³ US EPA *Village Blue: Real-Time Water Quality Monitoring to Help Communities Better Understand Local Water Quality*; available online at <https://www.epa.gov/water-research/village-blue>; Website last updated: March 12, 2021

⁴⁴ US EPA; *Cyanobacteria Assessment Network Application (CyAN app)*; available online at <https://bit.ly/3GnBu5w>; Website last updated: July 20, 2021

⁴⁵ Cyanobacteria Monitoring Collaborative; *Homepage*; available online at <https://cyanos.org/>; Website accessed on September 21, 2021

Table 1. Additional information regarding various ORD monitoring projects mentioned is provided in this table.

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| information from this study will provide educational opportunities for the communities to learn about air quality and will uncover a better understanding on local air quality and community health. (2017 – 2019) ⁴⁶ |
| Wildland Fire Sensor Challenge*: Development of low-cost sensors to monitor air quality from forest fires. (2017-2018) ⁴⁷ |
| Cleaner Indoor Air Wildfire Smoke Challenge *: Solutions for cleaning indoor air during wildfire smoke or other high pollution events (Winners to be announced Fall 2021) ⁴⁸ |
| Nutrient Sensor Action Challenge: Empower communities to use nutrient sensor data in decision making (2017-2019, 2 phases) ⁴⁹ |
| Smart Advanced Septic System Sensor Challenge*: Develop affordable sensors to monitor for septic system operation (2021) ⁵⁰ |
| Campus RainWorks (OW Challenge) *: Competition that engages college students in the design of green infrastructure solutions to address stormwater pollution. (2021) ⁵¹ |

** Challenges have rapidly gained support across federal agencies as a way to promote innovation and accelerate problem solving. By harnessing the ingenuity and creativity of the public, these incentive competitions can solve pressing problems, while stimulating innovative thinking and encouraging public collaboration in government activities.*

In late fall 2021, the EPA’s Office of Air and Radiation will launch a \$20 million grant competition that will call for proposals from community groups, state, Tribal and local air agencies – individually or in partnerships – to conduct monitoring of pollutants of greatest concern in communities with health outcome disparities. This grant competition is made possible through the appropriation the EPA received from ARPA. OAR’s primary objective in issuing these grants is to provide better air quality information in communities. The EPA will give grants to support community and local efforts to monitor their own air quality and to promote monitoring partnerships between communities and state, Tribal and local governments.

The EPA has engaged with partners to solicit feedback and insight about the design of the competitive grant competition portion of the air quality monitoring appropriation, including sessions with Tribes, community representatives, and state and local air agencies.

⁴⁶ US EPA; *RESES Projects by Subject*; available online at <https://bit.ly/3jBPylc>; Website last updated on May 13, 2021

⁴⁷ US EPA, *Winners of the Wildland Fire Sensors Challenge Develop Air Monitoring System Prototypes*; Available online at: <https://www.epa.gov/air-research/winners-wildland-fire-sensors-challenge-develop-air-monitoring-system-prototypes>; Website Last updated on August 21, 2020

⁴⁸ US EPA, *Cleaner Indoor Air During Wildfires Challenges*; Available online at: <https://www.epa.gov/air-research/cleaner-indoor-air-during-wildfires-challenge>; Website Last updated on March 17, 2021

⁴⁹ US EPA, *Nutrient Sensor Action Challenge*; Available online at: <https://www.epa.gov/innovation/nutrient-sensor-action-challenge>; Website last updated on July 28, 2021

⁵⁰ US EPA, *Smart Advanced Septic Systems Challenge*; Available online at: <https://www.epa.gov/innovation/smart-advanced-septic-systems-challenge>; Website last updated on June 11, 2021

⁵¹ Penn Today, *Penn group wins EPA Campus RainWorks Challenge*; Available online at: <https://penntoday.upenn.edu/news/penn-group-wins-epa-campus-rainworks-challenge>; published April 20, 2021

Issues Related to Youth Engagement on Climate Change

The July 12, 2018, NEJAC letter introduces the *Youth Perspectives on Climate Change* report provided to the EPA with recommendations for best practices for addressing climate change concerns from a youth perspective. The NEJAC letter highlights that successful youth engagement on climate change can be supported by efforts that mentor and train youth leaders and engage youth in decision-making, build capacity by allocating resources for youth development, and develop and implement principles for engaging youth on climate justice.⁵²

The EPA is pursuing several efforts, primarily through ORD, to develop best practices for youth engagement to address human health and environmental risks including the impacts of climate change:

- ORD's EnviroAtlas team has produced teaching materials and curricula for training youth in K-12 and college, available online at www.epa.gov/enviroatlas.
- The EnviroAtlas team has ongoing engagements with communities. An example is Project PEACE by Youth, (PEACE is an acronym for Promoting Environmental Action and Community Empowerment). This project is designed to engage young people on issues of importance in their own communities and to build their capacity to use online tools to understand, explore, and to create action plans to address local issues. Over the course of a year, teachers and students engage in local, place-based problem-solving using the EnviroAtlas tools and resources.
- In 2021, ORD's Community Engagement-STEM program led 37 sessions, with a total of 837 participants in several low-income North Carolina school districts with diverse student populations, of GENERATE: The Game of Energy Choices. GENERATE was developed by EPA researchers in Research Triangle Park to demonstrate how using fossil fuels to generate electricity impacts air quality, climate, and surface water consumption. Participants learned how renewable energy and energy efficiency can reduce such impacts.
- ORD has recently hired a STEM Outreach Coordinator for EPA Cincinnati. The goal for the new coordinator is to design, develop, and implement an outreach strategy to engage and grow relationships with local K-12 and university STEM leaders that includes facility tours, internship/mentorship programs, and science-related events/celebrations at EPA Cincinnati and community wide. A big component of this effort will be building relationships with Minority Serving Institutions and students, teachers and schools in underrepresented communities.
- ORD was involved in creating the "Awesome Girls: Protect the Planet" virtual event with the Girl Scouts of the USA, targeted for elementary through high school youth. The virtual event was recorded in December 2020, and through playback, it still provides youth with a way to learn about the EPA and citizen science and to earn an EPA patch.
- The EPA's local programs such as the Community Engagement and STEM Education Program in EPA's Research Triangle Park facility are committed to increasing equity and

⁵² The NEJAC: (2018, July 31) - *Report to Acting Administrator Andrew Wheeler re: Best Practices for Youth Engagement and Addressing Health Impacts of Climate Change*; Available online at: https://www.epa.gov/sites/default/files/2018-10/documents/nejac_youth_perspectives_on_climate_change_report.pdf.

building capacity for a more diverse workforce and prioritizing requests from schools with a high percentage of free or reduced-cost lunches.

- ORD is building on its long-term STEM outreach collaboration with science teachers at Durham, N.C.'s Southern High School to establish a Youth Climate Council during the 2021-22 school year. The council will build student capacity to be part of the community solution to addressing climate change at this diverse and low-income school (80 percent free/reduced lunch, 48 percent black, 45 percent Hispanic).
- Developing the capacity for educators to use EPA education resources helps ORD reach more students and expands the EPA's ability to protect human health and the environment. In FY21, ORD provided training for 130 educators through multiple programs including our Memorandum of Understanding with the N.C. State University Kenan Fellows Program for Teacher Leadership, the N.C. Department of Public Instruction, the WakeEd Partnership and the OAR's Air Quality Workshop for Educators.
- In June 2021, ORD hosted its 11th annual Summer Science Institute for High School Students. The weeklong program teaches students about how the EPA protects human health and the environment and educates them about EPA research through interactive activities during 18 sessions.
- The EnviroAtlas team fosters youth empowerment, autonomy, and community capacity through educational resources. These include ready-made lesson plans for every grade level, from kindergarten through undergraduate (2016-2020), which are:
 - Aligned with Next Generation and State Science Standards for each grade in the Appendix; and
 - Can be used in formal and informal educational settings.
 - Presented in four modules:
 - Connecting Ecosystems and Health
 - Building a Greenway
 - Exploring your Watershed (available in English and Spanish)
 - Exploring Ecosystem Services
- ORD's Community Engagement-STEM program has hosted 12 workshops for a total of 350 students and educators utilizing the Building a Greenway module.
- EPA EnviroAtlas staff continue to mentor recent college graduates entering the EPA via various internship programs. More than 60 recent graduates have started their careers working on EnviroAtlas projects spending two-five years with the EPA and working on everything from climate science to gentrification.
- The EnviroAtlas team recently published their model for youth-led EJ action in a recent peer-reviewed article, "Empowering Environmental Justice Decision Makers: Increasing Educational Resources for EPA's Mapping Tools."⁵³
- The EnviroAtlas Team recently held an 8-session training for EPA employees with the goal of developing our internal capacity to teach the EnviroAtlas Educational lessons.⁵⁴
- ORD and OEJ have worked with co-sponsor organizations on an EJ video challenge with the goal of incentivizing university-level students in the United States and its territories to

⁵³ Jenna M. Hartley, Stacey Lobatos, Jessica L. Daniel, and Tai Lung (17, June 2021); *Empowering Environmental Justice Decision Makers: Increasing Educational Resources for U.S. Environmental Protection Agency's Mapping Tools*; Published by Mary Ann Liebert, Inc. <https://www.liebertpub.com/doi/10.1089/env.2021.0037>

⁵⁴ US EPA *EnviroAtlas Educational Materials*; available online at <https://www.epa.gov/enviroatlas/enviroatlas-educational-materials>; Website last updated on October 28, 2020

develop solutions to address community EJ challenges while helping to build capacity in communities through the use of publicly available tools and data to characterize environmental health needs and community vulnerability to environmental health hazards. The EPA expects to launch the Challenge in Fall 2021.

Issues Related to Disposal of Hazardous Wastes and Response to Chemical Disasters

The EPA sincerely thanks the NEJAC for its May 2021 report titled *Superfund Remediation and Redevelopment for Environmental Justice Communities*. The agency embraces the need for better outcomes in communities where there are unique burdens and vulnerabilities of overburdened populations living in and around Superfund sites, and the agency looks forward to continued work with the NEJAC to find solutions. The EPA has reviewed the report and its 36 specific recommendations for integrating environmental justice into the cleanup and redevelopment of Superfund and other contaminated sites. The EPA appreciates and supports the NEJAC's overall goal to continue to address barriers, develop solutions, and recommend best practices for improving the EPA's ability to expedite Superfund cleanups.⁵⁵

Below is the EPA's response to the specific recommendations based on the report's seven strategies. This response is based on a review of existing efforts, including the EPA's commitments under the Office of Land and Emergency Management's Environmental Justice Action Plan. In sections identified as needing greater clarification, the goal is to improve the agency's understanding of intended outcomes to determine whether ongoing EPA activities are already achieving them. OLEM looks forward to further discussion regarding the NEJAC's recommendations in this critical area.

The EPA has organized its responses to the report's recommendations into three categories:

1. Activities where the EPA intersects or commits to expanding or enhancing its work (19 recommendations).
2. Activities where the EPA needs further clarification from the NEJAC (15 recommendations).
3. Recommendations the EPA does not currently plan to implement (2 recommendations).

Activities Where EPA Intersects or Commits to Expanding or Enhancing Work

NEJAC Report Strategies 1 and 2 recommend that the EPA implement more intensive community engagement practices at Superfund sites; revise and update guidance and strengthen policies focused on understanding and responding to community needs.

Strategies one and two include several recommendations pertaining to EPA's Office of Superfund Remediation and Technology Innovation's work to conduct early and meaningful involvement at Superfund sites impacting EJ communities and to overcome trust issues with effective risk communications. OSRTI is committed to continuously improving the robust tools and resources that are already available in the community involvement program. OSRTI is also

⁵⁵ The NEJAC (2021, May 6) - Report to Administrator Michael Regan re: Superfund Remediation and Redevelopment for Environmental Justice Communities; available online at <https://bit.ly/3EeGLdz>

focused on sharing best practices and case studies, updating policies and guidance and strengthening technical assistance services.

Additionally, community involvement coordinators are assigned to every Superfund site, and their role is to ensure early and meaningful engagement with the community, including local officials. Community involvement plans are prepared for every Superfund site to identify specific community concerns, based on community interviews and input and serve as the blueprint for community involvement activities.

In addition to continuously improving the community involvement program, OSRTI plans to introduce a number of new activities and pilots to help Superfund go beyond the regulatory requirements when conducting community engagement and to further embrace the need for better outcomes in disadvantaged communities and people with disabilities. These include:

- OSRTI is developing numerous activities to support Executive Order 14008 and the White House Justice40 Initiative, and to specifically support potential communities with EJ concerns that may be impacted by Superfund sites (more information about Justice40 is addressed under the response to strategies 6 and 7). Superfund is currently developing consistent regional protocols for identifying sites in Superfund Enterprise Management System that may be in or near communities with EJ concerns. In addition, OSRTI convenes monthly EJ discussions among Community Involvement Coordinators and other site team members.
- A new pilot project will provide a more holistic approach to communities early in the Superfund process.
- As part of a Memorandum of Understanding between OSRTI and the Department of Housing and Urban Development, the EPA is working to identify Superfund sites near HUD facilities and assess the need for potential cleanup activities.
- The EPA is also in discussions with HUD and other agencies regarding a more holistic and collaborative approach to addressing multiple sources of lead at Superfund sites.
- The EPA offers robust risk communications training and has made additional training and expertise available through a recently hired risk communications advisor. OSRTI agrees that it would be useful to encourage state and local counterparts to also participate in these trainings (more information on training under the NEJAC Strategy 3). OSRTI also convenes monthly program meetings to discuss current issues and concerns and to share best practices.

OSRTI is committed to training the EPA site teams to be familiar with all community involvement tools, techniques and resources and to bring consistency in how these are shared with communities. OSRTI is also committed to enhancing the use of online community engagement tools.

OSRTI provides communities with access to technical assistance opportunities through Technical Assistance Grants and Technical Assistance Services for Communities Program. The EPA also implements the Superfund Job Training Initiative, which has led to employment opportunities for community members at numerous sites. OSRTI is currently updating the TAG website and working with a committee of citizens and EPA staff to update the TAG application process to make it easier for communities to apply. The EPA also conducts technical assistance needs assessments to provide communities with the right tools and resources.

The NEJAC Report Strategy 3: Update, improve and expand training that reaches impacted communities, EPA staff, and state staff

NEJAC's Strategy 3 recommendations present several opportunities for OSRTI to expand its training to provide more and varied opportunities to train community members, local officials, and states. OSRTI is currently or plans to:

- Expand its robust Community Involvement University to create a new community track for CIU. To accomplish this, OSRTI will work with Superfund site teams, state and local health departments and other stakeholders;
- Work with Superfund's Technology Innovation and Field Services Division to determine how to strengthen tribal engagement;
- Provide risk communication training to site teams and work closely with state and federal health partners to communicate potential health risks to communities;
- Provide a variety of state-of-the-art community involvement and risk communication training to site teams through our Community Involvement University and CERCLA Education Center training programs.

The NEJAC Report Strategies 4 and 5: Elevate future use planning as a core element of the Superfund process; leverage redevelopment and reuse as a catalyst for innovation and accelerated cleanup

NEJAC's recommendations for strategies 4 and 5 are focused on the consistent and early establishment of a common, community-driven end-state vision at Superfund sites. OSRTI is committed to strengthening its reuse and redevelopment tools, with early planning as a core element of the Superfund process and as a means to accelerate site progress. The EPA's Superfund Redevelopment Program provides a multitude of tools, assistance, and seed-funding to support communities with redevelopment and reuse and has helped communities reclaim and reuse thousands of acres of formerly contaminated land. Both needs assessments and reuse assessments are available for communities as early as possible in the Superfund process and include visioning and charrettes.

OSRTI is currently in the process of enhancing the Superfund Redevelopment Program by examining ways to provide more training to site teams and more emphasis on early engagement to help communities plan for the beneficial reuse of sites and emphasizing the role redevelopment plays in protecting the remedy. As mentioned above under Strategy 1, OSRTI is also piloting a holistic approach to introducing Superfund to communities early in the process. The EPA's Technology Innovation and Field Services Division provides technical support to RPMs, upon the request of the region, to encourage the use of innovative approaches. TIFSD also reaches out to Remedial Project Managers with information on innovative approaches and includes that material in our internal training programs. In addition, TIFSD recently developed

an internal list of technical experts throughout the Agency, by area of expertise, that RPMs can consult with to help them identify the support they need.

The NEJAC Report Strategies 6 and 7: Ensure equity in all aspects of the Superfund program; increase access to resources for impacted communities

Per Executive Order 14008, OSRTI is developing an implementation plan to support the Justice40 initiative that identifies and tracks Superfund benefits to overburdened, disadvantaged and vulnerable communities and people with disabilities.

Under the Justice40 Implementation Plan, the Superfund program is exploring how to track resources to disadvantaged communities and people with disabilities. This aligns with:

- developing a Budget Equity Tool and building in equity as a key component of EPA budgeting and financing at Superfund sites.
- setting site specific goals for the percentage of EPA cleanup spending that directly supports the impacted communities and publicly track performance toward meeting these goals.
- expanding availability and improving accessibility of EPA resources for impacted populations at Superfund sites.

Additional related efforts include the existing Superfund Job Training Initiative that provides training in soft and life skills; enhanced federal government collaboration to address multiple sources of lead; and potential redevelopment opportunities the EPA is exploring with HUD.

Activities where the EPA needs further clarification from the NEJAC

OLEM looks forward to engaging with the NEJAC soon to discuss the council's intent and thinking regarding the following recommendations:

- develop a program-level Decision-Making Engagement Guidance aimed at more substantive and consistent involvement of impacted populations
- develop and issue guidance on using an Impacted Community Centric/Concentric Circle Approach to Stakeholder Engagement
- develop and issue revised guidance (and training) on remedy enhancement and betterment, as an update to OSWER Directive 9200.3-110
- establish and maintain a Case Study Repository with structured data collection and search capabilities
- establish/ promote "Communities of Practice" among RPMs structured around technologies, site types or other knowledge categories for sharing best practices
- establish a Remediation and Redevelopment "Innovation Incubator" within the EPA focused on leveraging redevelopment and reuse as a catalyst for effective, accelerated cleanup.
- expand the use of community-driven Health Impact Assessments as needs assessment and business planning tools
- establish a Superfund Equity Pilot Program for impacted communities addressing contaminated site remediation and redevelopment

- scale from a Superfund Equity Pilot to an established Equity Program (EPA is exploring potential redevelopment opportunities with HUD)
- develop and implement proactive measures that minimize the displacement of long-time community residents due to gentrification and foster redevelopment that is beneficial to the community (address under Superfund Redevelopment Program)
- develop a roster of potentially interested national, regional and local foundations and convene a community of practice between these foundations and impacted communities
- increase access to funding for impacted communities by improving the funding/grant management process that is need-based
- foster engagement of financial institutions in supporting revitalization through community EJ developers (covered under Superfund Redevelopment program)
- form EPA cross-department partnerships to increase access to resources for impacted populations (intersects with lead collaboration and HUD-EPA collaboration).

Recommendations that EPA Does Not Currently Plan to Implement

Due to limitations in EPA's authorities, the agency is unable to implement these two recommendations from the NEJAC report:

- Develop and fund a Superfund Community-Based Reuse Area-Wide Planning Grant Program and implement an SCBR-AWP pilot to develop a proof of concept (OSRTI believes existing tools may accomplish this goal without needing legislative authority).
- Re-institute the Community Action for a Renewed Environment grant program.

Additional Activities

The NEJAC recommended an increase in funding to address the backlog of unfunded Superfund cleanup projects impacting communities with EJ concerns. The Biden-Harris Administration has requested additional funding for fiscal year 2022 for the Superfund Program for this purpose.⁵⁶

The EPA completed a final action to establish no new regulatory requirements under the Clean Water Act authority for hazardous substances discharge prevention and containment in 2019. To make this determination, the agency analyzed the existing framework of EPA regulatory requirements and the frequency and impacts of reported CWA hazardous substance discharges.

Administrator Regan has directed the development of a proposed rule to require certain facilities to develop plans to respond to worst-case discharges of CWA hazardous substances. The proposal would apply to facilities that have the potential to harm public health or the environment in the event of a worst-case discharge. The EPA recognizes that communities of color and low-income communities are more likely to be in proximity to these facilities, and thus potentially at a greater risk, than other populations, as was pointed out in the NEJAC's 2015 report on industrial waterfront communities. The EPA intends on publishing a proposed rule by

⁵⁶ The NEJAC (2019, August 14) - *Letter to Administrator Andrew Wheeler re: Recommendations for Promoting Environmental Regulation on Aboveground Storage Tanks*; available online at <https://bit.ly/3BaphwT>

March 2022, as was reflected in the 2021 Spring Regulatory Agenda as *Clean Water Act Hazardous Substance Worst Case Discharge Planning Regulations*, RIN 2050-AH17.⁵⁷

The EPA has identified the Risk Management Program regulation as an action for review in accordance with Executive Order 13990 Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.⁵⁸ EPA is reviewing prior RMP actions completed since 2017, including the 2017 Final Amendments to the RMP Rule and 2019 Final RMP Reconsideration Rule.⁶⁰ The EPA held virtual public listening sessions on June 16 and July 8, 2021, at which interested parties had the opportunity to present information, comments or views pertaining to the review of the RMP regulation. The EPA continues to work towards having a proposed rule published by September 2022, as reflected in the 2021 Spring Regulatory Agenda as *Accidental Release Prevention Requirements: Risk Management Program Under the Clean Air Act: Retrospective Rule*, RIN 2050-AH22.⁶¹

Issues Related to the National Environmental Policy Act

In the August 14, 2019, letter, the NEJAC recommended that the EPA work with other federal agencies and CEQ to strengthen the validity and integrity of environmental justice analysis and considerations in the NEPA process. Specific recommendations and concerns highlighted in the July 12, 2021, letter related to the need to improve the quality and quantity of environmental justice analyses integrated into NEPA documents, improve the economic impact analyses in NEPA documents and enhance the consideration of environmental justice community benefits in the identification of the environmentally preferable alternative.⁶²

Administrator Regan has directed the EPA NEPA program to strengthen consideration of impacts on communities with EJ concerns as well as consideration of climate change impacts in reviews of other federal agencies' environmental impact statements. In response, EPA staff have redoubled their efforts, added expertise to review teams and engaged with other federal agencies to promote more robust consideration of EJ and climate change. For example, the associate administrator for Policy, acting general counsel and deputy associate administrator for Policy recently met with the Chair of the Federal Energy Regulatory Commission to convey concerns expressed in the EPA's May letter to FERC in response to the FERC notice of inquiry on proposed updates to their policy statement on the Certification of New Gas Facilities. The EPA is actively working with the White House Council on Environmental Quality and other federal agencies in various interagency working groups to provide recommendations on how to improve

⁵⁷ *Clean Water Act Hazardous Substance Worst Case Discharge Planning Regulations*; RIN 2050-AH17 Publication ID Spring 2021; available online at <https://bit.ly/3vUUQKt>

⁵⁸ The NEJAC: (2019, May 3), *Letter to Administrator Andrew Wheeler re: Recommendation to Preserve the Chemical Disaster Safety Rule*; available online at <https://bit.ly/3EigxXL> and Federal Register (2021, January 25). *Executive Office of the President: Executive Order 13930 Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis*; available online at <https://bit.ly/3Bod9J7>

⁶⁰ US EPA. *Final Amendments to the Risk Management Program Rule*; available online at <https://bit.ly/2XI6hIF>; Website last updated February 26, 2021 and US EPA. *Final Risk Management Program Reconsideration Rule*; available online at <https://bit.ly/3nuNZUd>. Website last updated on February 26, 2021

⁶¹ *Accidental Release Prevention Requirements: Risk Management Program Under the Clean Air Act: Retrospection* Publication ID Spring 2021; available online at <https://bit.ly/3b8kDVW>

⁶² The NEJAC: (2019, August 14). *Letter to Administrator Andrew Wheeler re: National Environmental Policy Act and Environmental Justice*; available online at <https://bit.ly/3Gm9gYA>

the integration of EJ and climate change concerns into NEPA, paying particular attention to the recommendations and concerns the NEJAC has raised.

The EPA serves three primary roles under the National Environmental Policy Act and under Section 309 of the Clean Air Act:

- reviewing the EISs of other federal agencies, providing recommendations to lead agencies to improve the analysis within the EIS and recommending options to avoid and minimize impacts to environmental resources;
- managing national EIS filings and issuing the Notices of Availability for federal EISs in the Federal Register to initiate the start of the public comment and review periods; and
- complying with NEPA for EPA-led actions that meet NEPA thresholds, such as certain grant and permit programs administered by the EPA.

Since most of the NEJAC recommendations extend beyond EPA's Section 309 review role and apply to all federal agency actions, the EPA has shared these recommendations with the CEQ. CEQ's responsibilities include issuing policy, guidance and regulations for all federal agencies on how to comply with NEPA. The EPA has also shared these recommendations with the NEPA Committee under the Environmental Justice Interagency Advisory Committee (formerly the EJ Interagency Working Group), which provides a forum for federal agencies to collectively advance EJ principles.

Under EPA's Section 309 review role, the EPA reviews other federal agencies EISs for adequacy, including the adequacy of the alternatives analysis. When there may be additional reasonable alternatives that may avoid or minimize the impacts, including impacts to communities with EJ concerns, compared to the proposed action, the EPA identifies these options for consideration by the lead federal agency as potentially the environmentally preferable alternative under NEPA. The EPA strives to identify other avoidance, minimization and mitigation options for the proposed action as well that may reduce impacts to communities with EJ concerns. In addition, as part of the EPA's review, the EPA may review and comment on the economic analysis of potential effects that may occur because of the proposed federal actions.

Providing technical assistance through early engagement to federal agencies is a key principle in the EPA's NEPA and Section 309 responsibilities. Engaging early with federal agencies and sharing EPA expertise on how to better integrate EJ concerns in the NEPA analysis allows the agency to help other federal agencies identify a complete range of reasonable alternatives that meet the purpose and need of the proposed action and consider options to avoid and minimize potential impacts early in the planning process. The EPA continues to engage directly with lead agencies to ensure EJ issues are fully considered, consistent with the EPA's priorities. Recently, the EPA provided recommendations to the U.S. Army Corps of Engineers and FERC that any affected communities with EJ concerns identified during their NEPA process be offered an opportunity to provide input.

The EPA is currently reviewing and updating its Section 309 review program policies, procedures and tools to identify opportunities to improve the quality and consistency of the EPA reviews overall and specifically as it relates to concerns regarding EJ and climate change. The EPA is working with CEQ and interagency working groups, such as the Federal Interagency

Working Group on Social Cost of Greenhouse Gases and the Federal Environmental Justice Advisory Committee, to promote improved and enhanced integration of environmental justice concerns in all federal agency NEPA decisions.

Since the EPA's role in the NEPA process is unique, Office of Policy staff have reached out to the NEJAC's NEPA Working Group and soon plan to have the first of what may be many discussions to share specifics on the EPA's Section 309 review role as it pertains to NEPA. The EPA will be available to discuss other ideas the NEJAC members may have to help the agency improve its comments and recommendations to other federal agencies.

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

November 15, 2021

**PERMIT TO INSTALL
90-21**

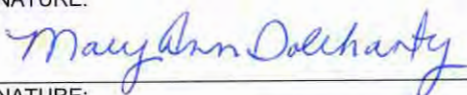
ISSUED TO
Ajax Materials Corporation

LOCATED AT
5088 Energy Drive
Flint, Michigan 48505

IN THE COUNTY OF
Genesee

STATE REGISTRATION NUMBER
P1171

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

| | |
|---|--|
| DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: May 28, 2021 | |
| DATE PERMIT TO INSTALL APPROVED: November 15, 2021 | SIGNATURE:  |
| DATE PERMIT VOIDED: | SIGNATURE: |
| DATE PERMIT REVOKED: | SIGNATURE: |

PERMIT TO INSTALL

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COMMON ACRONYMS

| | |
|----------------------------|---|
| AQD | Air Quality Division |
| BACT | Best Available Control Technology |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| COMS | Continuous Opacity Monitoring System |
| Department/department/EGLE | Michigan Department of Environment, Great Lakes, and Energy |
| EU | Emission Unit |
| FG | Flexible Group |
| GACS | Gallons of Applied Coating Solids |
| GC | General Condition |
| GHGs | Greenhouse Gases |
| HVLP | High Volume Low Pressure* |
| ID | Identification |
| IRSL | Initial Risk Screening Level |
| ITSL | Initial Threshold Screening Level |
| LAER | Lowest Achievable Emission Rate |
| MACT | Maximum Achievable Control Technology |
| MAERS | Michigan Air Emissions Reporting System |
| MAP | Malfunction Abatement Plan |
| MSDS | Material Safety Data Sheet |
| NA | Not Applicable |
| NAAQS | National Ambient Air Quality Standards |
| NESHAP | National Emission Standard for Hazardous Air Pollutants |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| PS | Performance Specification |
| PSD | Prevention of Significant Deterioration |
| PTE | Permanent Total Enclosure |
| PTI | Permit to Install |
| RACT | Reasonable Available Control Technology |
| ROP | Renewable Operating Permit |
| SC | Special Condition |
| SCR | Selective Catalytic Reduction |
| SNCR | Selective Non-Catalytic Reduction |
| SRN | State Registration Number |
| TBD | To Be Determined |
| TEQ | Toxicity Equivalence Quotient |
| USEPA/EPA | United States Environmental Protection Agency |
| VE | Visible Emissions |

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

POLLUTANT / MEASUREMENT ABBREVIATIONS

| | |
|-------------------|--|
| acfm | Actual cubic feet per minute |
| BTU | British Thermal Unit |
| °C | Degrees Celsius |
| CO | Carbon Monoxide |
| CO ₂ e | Carbon Dioxide Equivalent |
| dscf | Dry standard cubic foot |
| dscm | Dry standard cubic meter |
| °F | Degrees Fahrenheit |
| gr | Grains |
| HAP | Hazardous Air Pollutant |
| Hg | Mercury |
| hr | Hour |
| HP | Horsepower |
| H ₂ S | Hydrogen Sulfide |
| kW | Kilowatt |
| lb | Pound |
| m | Meter |
| mg | Milligram |
| mm | Millimeter |
| MM | Million |
| MW | Megawatts |
| NMOC | Non-Methane Organic Compounds |
| NO _x | Oxides of Nitrogen |
| ng | Nanogram |
| PM | Particulate Matter |
| PM ₁₀ | Particulate Matter equal to or less than 10 microns in diameter |
| PM _{2.5} | Particulate Matter equal to or less than 2.5 microns in diameter |
| pph | Pounds per hour |
| ppm | Parts per million |
| ppmv | Parts per million by volume |
| ppmw | Parts per million by weight |
| psia | Pounds per square inch absolute |
| psig | Pounds per square inch gauge |
| scf | Standard cubic feet |
| sec | Seconds |
| SO ₂ | Sulfur Dioxide |
| TAC | Toxic Air Contaminant |
| Temp | Temperature |
| THC | Total Hydrocarbons |
| tpy | Tons per year |
| µg | Microgram |
| µm | Micrometer or Micron |
| VOC | Volatile Organic Compounds |
| yr | Year |

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

| Emission Unit ID | Emission Unit Description (Including Process Equipment & Control Device(s)) | Installation Date / Modification Date | Flexible Group ID |
|-------------------------|---|--|------------------------------|
| EUHMAPLANT | Hot mix asphalt (HMA) facility including: aggregate conveyors, a 500 tph counter-flow drum, and a 100,000 cfm baghouse | TBD | NA |
| EUYARD | Fugitive dust sources including: plant roadways, plant yard, material storage piles, material handling operations (excluding cold feed aggregate bins). | TBD | NA |
| EUACTANKS | Six 30,000 gallon liquid asphalt cement storage tanks with a total heat capacity of 2 MMBtu/hr | TBD | NA |
| EUSILOS | Eight 300 ton capacity hot mix asphalt (HMA) paving material product storage silo. | TBD | NA |

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

EUHMAPLANT EMISSION UNIT CONDITIONS

DESCRIPTION

Hot mix asphalt (HMA) facility including: aggregate conveyors, a 500 tph counter-flow drum, and a 100,000 cfm baghouse

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Fabric filter dust collector.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------|-----------------------------------|---|------------------|--|---|
| 1. PM | 0.04 gr/dscf | Hourly | EUHMAPLANT | SC V.5, SC VI.4 | 40 CFR 60.92 |
| 2. PM | 0.036 lb per ton ^b | Hourly | EUHMAPLANT | SC V.2, SC V.5, SC VI.4 | R 336.1205(1)(a), |
| 3. PM | 15.95 tpy ^a | 12-month rolling time period as determined at the end of each calendar month | EUHMAPLANT | SC VI.8 | R 336.1205(1)(a) |
| 4. PM10 | 0.05 lb per ton ^{b,c} | Hourly | EUHMAPLANT | SC V.2, SC V.3, SC V.4, SC VI.8 | R 336.1205(1)(a), R 336.1205(3), 40 CFR 52.21(c) & (d) |
| 5. PM10 | 21.91 tpy ^a | 12-month rolling time period as determined at the end of each calendar month | EUHMAPLANT | SC VI.8 | R 336.1205(1)(a), R 336.1205(3) |
| 6. PM2.5 | 0.05 lb per ton ^b | Hourly | EUHMAPLANT | SC V.2, SC V.3, SC V.4, SC VI.8 | R 336.1205(1)(a), R 336.1205(3), 40 CFR 52.21(c) & (d) |
| 7. PM2.5 | 21.91 tpy ^a | 12-month rolling time period as determined at the end of each calendar month | EUHMAPLANT | SC VI.8 | R 336.1205(1)(a), R 336.1205(3) |
| 8. CO | 0.2 lb per ton ^b | Hourly | EUHMAPLANT | SC V.2, SC V.3 | R 336.1205(1)(a), R 336.1205(3) |
| 9. CO | 87.63 tpy ^a | 12-month rolling time period as determined at the end of each calendar month | EUHMAPLANT | SC VI.8 | R 336.1205(1)(a), R 336.1205(3) |

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|---------------------|--|--|------------|------------------------------|------------------------------------|
| 10. SO ₂ | 0.16 lb per ton ^b | Hourly when burning Fuel Oil #6 | EUHMAPLANT | SC V.2, SC V.3, SC V.4 | R 336.1205(1)(a), R 336.1205(3) |
| | 0.089 lb per ton ^b | Hourly when burning Fuel Oils #1-5, propane, or natural gas | | | |
| 11. SO ₂ | 70.11 tpy ^a | 12-month rolling time period as determined at the end of each calendar month | EUHMAPLANT | SC VI.8 | R 336.1205(1)(a), R 336.1205(3) |
| 12. NO _x | 0.07 lb per ton ^b | Hourly | EUHMAPLANT | SC V.2, SC V.3, SC V.4 | R 336.1205(1)(a), R 336.1205(3) |
| 13. NO _x | 30.67 tpy ^a | 12-month rolling time period as determined at the end of each calendar month | EUHMAPLANT | SC VI.8 | R 336.1205(1)(a), R 336.1205(3) |
| 14. VOC | 0.06 lb/ton ^b | Hourly | EUHMAPLANT | SC V.2, SC V.3, SC V.4 | R 336.1205(1)(a), R 336.1702 |
| 15. VOC | 26.29 tpy ^a | 12-month rolling time period as determined at the end of each calendar month | EUHMAPLANT | SC VI.8 | R 336.1205(1)(a), R 336.1702 |
| 16. Lead | 1.00 ×10 ⁻⁵ lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2, SC V.3, SC V.4 | R 336.1225 |
| 17. Benzene | 0.00075 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 18. Toluene | 0.003 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 19. Ethylbenzene | 0.001 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 20. Xylene | 0.001 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 21. Naphthalene | 0.00078 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 22. Formaldehyde | 0.0054 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 23. Acrolein | 0.001 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 24. Arsenic | 2.0×10 ⁻⁶ lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|--|--|----------------------------------|--|-----------------------------|------------------------------------|
| 25. Nickel | 0.000076 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 26. H ₂ SO ₄ | 0.0032 lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 27. Manganese | 3.5 × 10 ⁻⁵ lb per ton ^{b,1} | Hourly | EUHMAPLANT | SC V.2 | R 336.1224, R 336.1225 |
| 28. Opacity | 20% | 6 minute average | Drum dryer; systems for handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler/aggregate and the loading, transfer, and storage systems associated with emission control systems | SC V.6 | 40 CFR 60.92, R 336.1301 |
| ^a Annual limits based on 876,322 tons HMA paving material production. | | | | | |
| ^b Pound pollutant per ton of HMA paving material produced. | | | | | |

II. MATERIAL LIMIT(S)

- The permittee shall not burn any fuel other than natural gas, propane, and fuel oil #1-6 in EUHMAPLANT. Fuel oil #6 shall have no more than a 1% sulfur content, all other fuel oils are limited to 0.5%. **(R 336.1205(1)(a), R 336.1224, R 336.1225)**
- The permittee shall not use any asbestos tailings or waste materials containing asbestos in EUHMAPLANT pursuant to the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 61, Subpart M. **(R 336.1225, 40 CFR Part 61 Subparts A & M)**
- The permittee shall limit the asphalt mixture processed in EUHMAPLANT to a maximum of 50 percent RAP material based on a weekly average. **(R 336.1224, R 336.1225, R 336.1702)**
- The permittee shall not process more than 876,322 tons of HMA paving materials in EUHMAPLANT per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a), R 336.1205(3))**
- The permittee shall not process more than 550 tons of HMA paving materials in EUHMAPLANT per hour as determined at the end of each hour. **(R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d),)**
- The permittee shall not process more than 12,000 tons of HMA paving materials per day in EUHMAPLANT as determined at the end of each calendar day. **(R 336.1224, R 336.1225, R 336.1702, 40 CFR 52.21(c) & (d))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUHMAPLANT unless the Fugitive Dust Control Plan for EUYARD specified in Appendix A, or alternative as approved by the district supervisor, has been implemented and is maintained. **(R 336.1371, R 336.1372, Act 451 324.5524)**
2. The permittee shall not operate EUHMAPLANT unless the Preventative Maintenance Program specified in Appendix B, or alternative as approved by the district supervisor, has been implemented and is maintained. **(R 336.1910, R 336.1911)**
3. The permittee shall not operate EUHMAPLANT unless the Emission Abatement Plan for Startup, Shutdown and Malfunctions specified in Appendix C, or alternative as approved by the district supervisor, has been implemented and is maintained. **(R 336.1911, R 336.1912)**
4. The permittee shall maintain the efficiency of the EUHMAPLANT drum mix burners, to control CO emissions, by fine tuning the burners for proper burner operation and performance. The permittee shall fine tune the burners at the startup of the drum mix fuel burners; upon each paving season; after every 500 hours of operation thereafter or upon a malfunction of EUHMAPLANT as shown by the CO emission monitoring data, whichever occurs first. **(R 336.1205, R 336.1224, R 336.1225, R 336.170240, 40 CFR 52.21(c) & (d))**
5. The permittee shall install and operate the asphalt plant as reviewed in the permit application for PTI 90-21 except as allowed under Rules 201 and Rule 278(1)(b). **(R 336.1201(1), R 336.1205, R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, maintain, and operate the fabric filter dust collector, associated parameter monitoring, recording system, and associated alarm systems for EUHMAPLNT in a satisfactory manner. The baghouse shall be equipped with a bag leak detection system and alarm. The bag leak alarm system that will be calibrated and fully operational within 180 days of startup. Except as allowed in Appendix C, satisfactory operation of the fabric filter dust collector requires a pressure drop range between 2 and 10 inches of water column during operation. The minimum pressure drop shall not be less than 2 inches water gauge during operation, unless a reason acceptable to the AQD has been provided, such as when a large number of filter bags have been replaced. **(R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The verification and quantification of odor emissions from EUHMAPLANT, by testing at owner's expense, in accordance with Department requirements may be required for continued operation. Within 60 days upon notification from the AQD District Supervisor, the permittee shall submit to the AQD Technical Programs Unit and District Office, a complete stack sampling and odor threshold analysis plan using the Dynamic Dilution Method. The stack sampling plan shall include provisions for various fuel usages, plant operating conditions, and odor neutralizer system operation (if any). The AQD must approve the final plan prior to testing. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 120 days from notification from the AQD District Supervisor. **(R 336.1901, R 336.2001, R 336.2003, R 336.2004)**
2. Within 180 days after a request by the Department, the permittee shall verify emission rates for any requested pollutants from EUHMAPLANT by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|--------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |
| NO _x | 40 CFR Part 60, Appendix A |
| SO ₂ | 40 CFR Part 60, Appendix A |
| CO | 40 CFR Part 60, Appendix A |
| VOCs | 40 CFR Part 60, Appendix A |
| Metals | 40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A |
| Sulfuric Acid Mist | 40 CFR Part 60, Appendix A |
| HAPs | 40 CFR Part 63, Appendix A |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1225, R 336.2001, R 336.2003, R 336.2004)**

- Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation, the permittee shall verify PM10, PM2.5, NO_x, CO, SO₂, VOC, arsenic, benzene and formaldehyde and Lead from EUHMAPLANT by testing at the owner's expense, in accordance with Department requirements. Testing for each pollutant shall be performed once every 12-month period until three consecutive tests demonstrate compliance with its applicable emission limit. The testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|------------------|---|
| PM10 / PM2.5 | 40 CFR Part 51, Appendix M |
| NO _x | 40 CFR Part 60, Appendix A |
| SO ₂ | 40 CFR Part 60, Appendix A |
| CO | 40 CFR Part 60, Appendix A |
| VOCs | 40 CFR Part 60, Appendix A |
| Metals | 40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A |
| HAPs | 40 CFR Part 63, Appendix A |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(1)(a), R 336.1205(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

- Within 60 days upon the initial burning of fuel oil in EUHMAPLANT, the permittee shall verify PM10, PM2.5, NO_x, VOC, SO₂, arsenic, benzene and formaldehyde and lead from EUHMAPLANT by testing at the owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the table below.

| Pollutant | Test Method Reference |
|--------------------------------------|---|
| PM | 40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules |
| PM ₁₀ / PM _{2.5} | 40 CFR Part 51, Appendix M |
| NO _x | 40 CFR Part 60, Appendix A |
| SO ₂ | 40 CFR Part 60, Appendix A |
| VOCs | 40 CFR Part 60, Appendix A |
| Metals | 40 CFR Part 60, Appendix A; 40 CFR Part 61, Appendix B; 40 CFR Part 63, Appendix A |
| HAPs | 40 CFR Part 63, Appendix A |

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol and must meet the requirements of the federal Clean Air Act, all applicable state and federal rules and regulations, and be within the authority of the AQD to make the change. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1205(1)(a), R 336.1205(3), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

5. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of trial operation, the permittee shall verify particulate emission (PM) rates from EUHMAPLANT, as required by federal Standards of Performance for New Stationary Sources, by testing at owner's expense, in accordance with 40 CFR Part 60 Subparts A and I. The permittee shall notify the AQD District Supervisor in writing within 15 days of the date of commencement of trial operation in accordance with 40 CFR 60.7(a)(3). Stack testing procedures and the location of stack testing ports shall be in accordance with the applicable federal Reference Methods, 40 CFR Part 60 Appendix A. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(40 CFR Part 60 Subparts A & I))**
6. The permittee shall perform a visible emission observation for the drum dryer; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing (including piles) mineral filler/aggregate; and the loading, transfer, and storage systems associated with emission control systems once every 3 hours of operation and at least once a day when EUHMAPLANT is operating during daylight hours, using a method acceptable to the AQD. If the permittee observes visible emissions, the permittee shall do one of the following:
 - a) Perform a Method 9 for visible emissions. If after performing the Method 9 visible emissions reading, the permittee determines that visible emissions from the observation points exceed 20% opacity, the permittee shall immediately initiate an investigation to determine the cause of the visible emissions and initiate prompt corrective action: or
 - b) Determine the cause of the visible emissions and initiate prompt corrective action.A minimum of one Method 9 observation is required per day, during daylight hours. Records will include the time of each visible emissions observation and Method 9 reading, the reason if an observation or reading is not taken, if visible emissions were observed, identification of the cause, the corrective action taken, and the time of completion of corrective action. **(40 CFR 60.92, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a))**
2. The permittee shall monitor and record, in a satisfactory manner, the virgin aggregate feed rate and the RAP feed rate to EUHMAPLANT on a continuous basis during operation. **(R 336.1224, R 336.1225, R 336.1702)**

3. The permittee shall monitor, with a handheld CO monitor, the CO emissions from EUHMAPLANT and the production data associated with the time the emissions data were collected. The CO emissions should be less than 500 ppmv to ensure EUHMAPLANT is operating properly. One data set shall be recorded for each of the following occurrences:
 - a) Upon start-up of each paving season.
 - b) Upon a malfunction of the drum dryer or its associated burner.
 - c) After every 500 hours of operation.

A data set shall consist of at least eight separate CO readings and shall be taken over a total time period of 30 minutes or longer. The permittee shall submit any request for an alternate monitoring schedule in writing to the AQD District Supervisor for review and approval. Data collected by this method shall be used for determining proper burner operation. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

4. The permittee shall monitor emissions and operating information in accordance with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and I for EUHMAPLANT. The permittee shall keep records of all source emissions data and operating information on file at the facility and make them available to the Department upon request. **(40 CFR Part 60 Subparts A & I)**
5. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all drum mixer/burner and fabric filter dust collector components of EUHMAPLANT maintained and operating in a satisfactory manner. The owner or operator shall maintain a log of all significant maintenance activities conducted and all significant repairs made to EUHMAPLANT. Maintenance records for the fabric filter dust collector shall be consistent with the Preventative Maintenance Program specified in Appendix B. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**
6. The permittee shall keep the following records for each calendar month that EUHMAPLANT is operated:
 - a) Identification, type and the amounts (in gallons) of all fuel oils combusted and first date of use.
 - b) Sulfur content (percent by weight), specific gravity, flash point, and higher heating value (BTU/lb) of all fuel oils being combusted.
 - c) Tons of hot mix asphalt containing RAP produced

The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1402, R 336.1702)**

7. The permittee shall keep daily records of the following production information for EUHMAPLANT, updated upon the start of each new blend:
 - a) The virgin aggregate feed rate.
 - b) The RAP feed rate.
 - c) The asphalt paving material product temperature.
 - d) Information sufficient to identify all ingredients of the asphalt paving material mixture.

Upon start-up, the permittee shall record the initial mix design and time. When a new mix design is activated after start-up, the permittee shall record the time and new mix design. The permittee shall keep all records on file until the end of the paving season in which they were recorded and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**

8. The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period emission calculation records of all criteria pollutants listed in the Emission Limit Table for EUHMAPLANT using the calculation methods in Appendix D or an alternate method acceptable to the AQD District Supervisor. If stack test results for EUHMAPLANT exist for any of the pollutants, the permittee may use those stack test results to estimate pollutant emissions subject to the approval of the AQD. In the event that stack test results do not exist for a specific pollutant, the permittee shall use the applicable emission factor listed in the Emission Limit Table to estimate the emissions of a pollutant from EUHMAPLANT. The permittee shall keep all records on

file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1225, R 336.1702)**

9. The permittee shall keep records, as described in SC VI.3, of all CO emissions and related production data including the dates and times emissions were monitored. This data shall be used to ensure proper operation of the drum dryer or associated burner. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3), R 336.1224, R 336.1225, R 336.1702)**
10. The permittee shall keep, in a satisfactory manner, hourly, daily, monthly and 12-month rolling time period records of the amount of HMA paving materials produced from EUHMAPLANT. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3))**
11. The permittee shall keep, in a satisfactory manner, daily, monthly and 12-month rolling time period records of the hours of operation of EUHMAPLANT. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a), R 336.1205(3))**
12. The permittee shall monitor and record, in a satisfactory manner, the pressure drop for the fabric filter controlling EUHMAPLANT emissions on a continuous basis during operation. **(R 336.1224, R 336.1225, R 336.1910)**
13. The permittee shall record all instances of alarms for the high temperature and bag leak detection system, once the system is calibrated, for the EUHMAPLANT fabric filter system including the reason the alarm was activated and the actions taken. **(R 336.1224, R 336.1225, R 336.1910)**
14. The permittee shall keep weekly records of the RAP feed rate, including the average percent of RAP per ton of hot mix asphalt produced containing RAP. **(R 336.1224, R 336.1225, R 336.1702)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUHMAPLANT. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

| Stack & Vent ID | Maximum Exhaust Diameter / Dimensions (inches) | Minimum Height Above Ground (feet) | Underlying Applicable Requirements |
|----------------------------|---|---|---|
| 1. SVHMADRU | 68 | 80 | R 336.1225, 40 CFR 52.21(c) & (d) |

2. The permittee shall locate SVHMADRU at least 255 feet from the closest property line. **(R 336.1225, 40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENT(S)

1. The permittee shall install and maintain berms, fences, windbreaks, and/or trespassing warning signage as appropriate to secure the property boundary. Within 30 days of the first operation of EUHMAPLANT, the permittee shall submit to the AQD Supervisor confirmation of installation and a diagram of the location of each method being used. **-(R 336.1225, 40 CFR 52.21(c) & (d))**

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

EUYARD EMISSION UNIT CONDITIONS

DESCRIPTION

Fugitive dust sources including: plant roadways, plant yard, material storage piles, material handling operations (excluding cold feed aggregate bins).

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Controls as specified in the Fugitive Dust Control Plan in Appendix A

I. EMISSION LIMIT(S)

1. During the operating season, the permittee shall control the emissions from all roads and unpaved travel surfaces by the application of water, sweeping, vacuuming, or other acceptable dust control method on a frequency sufficient to meet the visible emission opacity standard of five (5) percent opacity on a continuous basis. **(40 CFR 52.21(c) & (d), Section 5524 of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451)**
2. The permittee shall not allow any visible emissions from any aggregate storage pile in EUYARD unless the visible emissions are the direct result of activity on the applicable pile or wind speeds of at least 12 miles per hour. The visible emissions when there is activity on the pile or the wind speeds are at least 12 miles per hour shall not exceed 20% opacity as specified in GC11 and EUHMAPLANT SC I.28 . **(40 CFR 52.21(c) & (d))**

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUYARD unless the fugitive dust control plan specified in Appendix A has been implemented and is maintained. The permittee shall submit modifications to this fugitive dust control plan if it does not adequately control the emissions upon request of the District Supervisor. Any changes made to the fugitive dust plan must be pre-approved in writing from the district prior to implementation. **(R 336.1371, R 336.1372, Act 451 324.5524, 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall install, maintain, and operate a wind speed monitor and continuous recording system in a satisfactory manner. Satisfactory operation includes operating the wind speed monitor and recording system at all times except for the period between paving seasons when the plant is inactive. **(40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1371, R 336.1372)**
2. The permittee shall calculate, in a satisfactory manner, the annual fugitive dust emissions for EUYARD for each reporting year, using emission factors approved by the Department such as those used in MAERS or an approved PTI application using the calculation methods specified in Appendix D or an alternate method approved by the AQD District Supervisor. **(R 336.1371, R 336.1372)**
3. The permittee shall maintain a record of all activities required by the fugitive dust plan in Appendix A. **(R 336.1371, R 336.1372)**
4. The permittee shall maintain a record of the recorded wind speeds in a format acceptable to the AQD District Supervisor and make them available upon request. **(40 CFR 52.21(c) & (d))**
5. The permittee shall make available upon request by the Department the silt content for each aggregate stored onsite based on the percent by weight passing the #200 sieve. **(40 CFR 52.21(c) & (d))**

VII. REPORTING

1. The permittee shall report the actual emission levels for EUYARD to the AQD through the annual emission reporting required under Section 5503(k) of Article II, Chapter 1, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). **(R 336.1371, R 336.1372)**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

EUACTANKS EMISSION UNIT CONDITIONS

DESCRIPTION

Six 30,000 gallon liquid asphalt cement storage tanks with a total heat capacity of 2 MMBtu/hr

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Vapor condensation and recovery system

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUACTANKS unless the vapor condensation and recovery system is installed, maintained, and operated consistent with manufacturers recommendations. **(R 336.1224, R 336.1702, R 336.1910)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall maintain records for maintenance activities on EUACTANKS consistent with the manufacturers recommendations to determine that the vapor condensation and recovery system is operating properly. All records shall be kept on file and made available to the Department upon request. **(R 336.1224, R 336.1702, R 336.1910)**

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

- ¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

EUSILOS EMISSION UNIT CONDITIONS

DESCRIPTION

Eight 300 ton capacity hot mix asphalt (HMA) paving material product storage silo.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT

Top of silo emission controls and loadout controls

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EUSILOS unless the emission capture system for the top of each storage silo is installed, maintained, and operated in a satisfactory manner. The permittee shall vent emissions collected from the top of the silos into a filtering system or shall control the emissions by equivalent means. **(R 336.1224, R 336.1702, R 336.1910)**
2. The permittee shall not operate EUSILOS unless emissions from the load-out area are properly captured and controlled. Unless otherwise specified by the District Supervisor, proper capture includes enclosing the truck load-out area with sides that extend to five feet above the top of the road grade at the entrance to the scale and, if appropriate, include wind blocking for entrance and exit points. If the load-out area inadequately captures and controls load-out emissions, the permittee shall modify the system or operation as requested by the District Supervisor. The permittee shall vent emissions collected from the truck load-out area into a filtering system or shall control the emissions by equivalent means. Any plans considered by the permittee as equivalent means shall be pre-approved in writing by the District Supervisor. The permittee shall not operate EUSILOS unless the silo load-out control system is installed, maintained and operated in a satisfactory manner **(R 336.1224, R 336.1702, R 336.1901, R 336.1910)**
3. The permittee shall conduct all necessary maintenance and make all necessary attempts to keep all load-out components of EUSILOS maintained and operating in a satisfactory manner. The owner or operator shall maintain a log of all significant maintenance activities conducted and all significant repairs made to EUSILOS. Maintenance records for the load-out control shall be consistent with the Preventative Maintenance Program specified in Appendix B. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1224, R 336.1702, R 336.1901, R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FGFACILITY CONDITIONS

DESCRIPTION: The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT

Watering and cleaning of roads to control of fugitive emissions, top of silo control, loadout controls, and vapor condensation and recovery system on asphalt tanks, and fabric filter dust collector on drum exhaust.

I. EMISSION LIMIT(S)

| Pollutant | Limit | Time Period / Operating Scenario | Equipment | Monitoring / Testing Method | Underlying Applicable Requirements |
|------------------------|---------------------|--|------------|-----------------------------|------------------------------------|
| 1. CO | 89.5 tpy* | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205(3) |
| 2. SO ₂ | 70.2 tpy* | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205(3) |
| 3. Each Individual HAP | Less than 8.9 tpy* | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205(3) |
| 4. Aggregate HAPs | Less than 22.5 tpy* | 12-month rolling time period as determined at the end of each calendar month | FGFACILITY | SC VI.2 | R 336.1205(3) |

* Potential emissions are limited by the annual throughput restriction of 876,322 tons of HMA paving materials in EUHMAPLANT and the heat rate capacities of other equipment at time of issuance

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1201(3))

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**
2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period CO, SO₂, each individual HAP, and aggregate total HAPs emission calculation records using methods specified in Appendix D or an alternate method approved by the AQD District Supervisor for FGFACILITY, as required by SC I.1, SC I.2, SC I.3, and SC I.4. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹ This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

APPENDIX A FUGITIVE DUST CONTROL PLAN

PURPOSE: This plan provides dust control strategies for the areas adjacent to and associated with the equipment operations involved in the manufacture of Hot Mix Asphalt (HMA) paving materials.

1. SITE MAINTENANCE

- a) Dust on all areas where vehicular traffic will travel shall be controlled by the application of water, sweeping, vacuuming, or other acceptable dust control method. This will occur a minimum of two times per month if using calcium chloride or weekly if using water during periods of operation. Watering may not be required during periods with precipitation. The dust control method shall be acceptable as determined by the District Supervisor. If fugitive emissions are observed from haul roads or track-out occurs, abatement actions such as sweeping/watering shall increase in frequency until no further fugitive emissions or track-out occurs.
- b) The speed of vehicles on the site will be limited to 10 miles per hour or less. Signs will be posted to advise drivers entering the facility of the speed limitation.
- c) The drop heights of all material transfer points and screening operations shall be minimized
- d) The permittee shall visibly monitor all potential areas of fugitive emissions including material transfer points, storage piles, loadout, and facility entrance.

2. MANAGEMENT OF ON-SITE ROADWAYS

- a) All the roadways on which the HMA haul vehicles and aggregate haul trucks will travel must be paved with HMA. This includes the roadway on which the vehicles travel around the process equipment to be loaded with HMA paving materials but excludes the aggregate storage yard.
- b) Any aggregate spillage on roads shall be removed immediately.
- c) The roadway shall have rumble strips installed where vehicles exit the plant site.

3. ON-SITE MANAGEMENT OF HAUL VEHICLES

- a) **INCOMING TRUCKS:** All trucks entering the site to deliver aggregates will be required to have the loads covered.
- b) **OUT-GOING TRUCKS:** All trucks leaving the site with HMA paving materials will be required to cover their loads prior to leaving the site. A sign shall be posted to advise drivers of this requirement.

4. MANAGEMENT OF FRONT-END LOADER OPERATIONS

The front-end loader operator shall be directed to avoid overfilling the bucket of the loader and the feed hoppers to prevent spillage, and to minimize the drop height of the material when loading the feed hoppers or transferring material to stockpiles.

5. RECORDKEEPING

Records of dust control activities on travel surfaces and other surfaces where fugitive dust emissions occur shall be kept on file and made available to EGLE staff upon request until the end of the paving season. The records will indicate the date, time, what was observed or the reason for the dust control activity (routine or other), and what action was taken. The record shall be maintained in the Operations Log Book.

6. FUGITIVE EMISSIONS FROM PROCESS EQUIPMENT AND FABRIC FILTER DUST COLLECTOR

Any fugitive emissions from leak(s) and malfunction(s) from any transfer system, storage bin, mixer, hopper, or fabric filter dust collector shall be immediately corrected to prevent further fugitive emissions.

7. FUGITIVE EMISSIONS FROM MINERAL AGGREGATE STOCKPILES

- a) Stock piling will be performed in a manner that minimizes freefall drop distance. The height of the front-end loader bucket shall be minimized to reduce the material drop height.
- b) Piles will be maintained to prevent fugitive dust in compliance with EUYARD SC I.1.

APPENDIX B

PREVENTATIVE MAINTENANCE PROGRAM FOR THE FABRIC FILTER DUST COLLECTOR

The Preventative Maintenance Program for the Fabric Filter Dust Collector is for the purpose of keeping the dust collector in good operating condition, and thereby, maintaining the rated capture efficiency of the dust collector for the control of particulate matter. ALL REFERENCES TO VISIBLE EMISSIONS IN THIS DOCUMENT, PARTICULARLY IN SEC. 5, REFER SPECIFICALLY TO VISIBLE EMISSIONS CAUSED BY A DUST (PARTICULATE) EMISSION.

1. FABRIC FILTER DUST COLLECTOR OPERATING PRESSURE DROP.

- a) The pressure drop across the fabric filter dust collector shall be continuously measured and the minimum pressure drop shall not be less than 2 inches, water gauge, unless a reason acceptable to the AQD has been provided, such as when a large number of filter bags have been replaced.
- b) The pressure drop across the fabric filter dust collector shall be recorded continuously during operation and kept available on-site.

2. FABRIC FILTER DUST COLLECTOR / PLANT ALARM SYSTEM.

The fabric filter dust collector shall be equipped with a high temperature sensor and alarm system and pressure detection sensor and alarm system. The baghouse shall also be equipped with a bag leak detection system and alarm that directly monitors changes in particulate emissions. The high temperature alarm system shall be designed to set off an alarm when the high temperature set-point has been violated, and, to begin a sequential shut-down of the plant if the situation is not resolved within a very short period of time after the alarm sounds. The pressure detection sensor shall be designed to set off an alarm when the pressure drop across the baghouse drops below 2 inches or raises above 10 inches. A log of all alarm instances shall be maintained including the reason the alarm was activated and the actions taken.

3. HANDLING AND STORAGE OF FABRIC FILTER DUST.

Accumulated fabric filter dust (particulate) shall be stored and/or be disposed of in a manner which minimizes the introduction of the air contaminants to the outer air.

4. PIPING AND SEALS MAINTENANCE.

Piping and seals shall be replaced as needed.

5. VISIBLE EMISSIONS AND ACTIONS TO BE TAKEN IN THE EVENT OF.

In the event visible emissions, which appear to exceed the standard allowed in General Condition No. 11 of this Permit to Install, are observed at the discharge point of the stack, the following actions shall be taken:

If no certified visible emissions reader can be on-site within 60 minutes of observing the visible emissions in excess of General Conditions No. 11 to verify the emission density, operations shall be ceased immediately and the cause of the visible emissions determined and corrected prior to operating the plant again.

REMINDER: If the visible emissions continue for more than 2 hours, in excess of an emission standard, per Rule 912 an excess emissions report must be made to EGLE.

6. BLACK LIGHT INSPECTIONS.

A black light test shall be conducted at least once per year - within one week of the beginning of operation for each paving season. Black light inspection equipment and materials shall be available for use at the facility and used as needed during the paving season.

7. INVENTORY OF FILTER BAGS.

An inventory of fabric filter bags shall be maintained by the facility owner or operator so that filter bags will be available to this site within four hours of requesting the filter bags. In addition, a minimum of 15 filter bags shall be kept on-site at all times. An inventory of other replacement parts for the fabric filter dust collector shall be maintained at all times.

8. FABRIC FILTER DUST COLLECTOR INSPECTION RECORD.

A written record in a bound notebook or digital format of the following shall be maintained by the owner or operator of the facility:

- Visual inspections of the interior components of the fabric filter dust collector, including date, time, and findings;
- Black light inspections, including date, time, and findings;
- Number of filter bags installed as a result of each inspection to replace filter bags already in use in the fabric filter dust collector, including date, time, location, and whether the replacement filter bag was brand new or a cleaned, previously used filter bag;
- An explanation (i.e., a description of the damage found) for each filter bag removed from the fabric filter dust collector and confirmation that another filter bag was installed to replace it;
- Each observation of visible emissions at the stack discharge point and description of response to the observed visible emission, including date and time of visible emission occurrence and results of EPA Method 9 observation, if any. Any such visible emission shall be recorded in the Daily Operations Log Book and made available upon request to the AQD.
- All significant maintenance activities performed on the fabric filter dust collector.

APPENDIX C

EMISSION ABATEMENT PLAN FOR STARTUP, SHUTDOWN AND MALFUNCTIONS

NORMAL STARTUP PROCEDURE

The plant computer controls plant startup. At startup the plant operator will enter the mix design, the tons per hour and the number of tons to be produced into the plant operations computer. Once the operator starts the equipment the computer will start the cold feed bins and set the feed rate (tons per hour) requested. The feed rate will be different for each mix design and production rate.

When the plant computer senses that aggregate is crossing over the belt scale, a timer that has been previously calibrated for the particular mix, starts to count down. When the timer reaches zero the asphalt is started and fed to the mixer. The two products (aggregate and asphalt cement) meeting together at the correct time will eliminate most dust that would escape from the mixing drum.

Material that is discharged at startup is removed by way of the drag slat and discharge gate. This material is dropped into a loader bucket, dump truck or a holding area. The material is then moved to the recycle pile. The drop height from the discharge gate is kept to the very minimum to keep any escaping dust from blowing.

NORMAL SHUTDOWN PROCEDURE

When shutting down the mixing operation, the plant computer stops the cold feed bins first. Material that is in process is allowed to proceed down the weigh belt. When the weigh belt senses that all material has cleared the belt a timer starts counting down to shut off the asphalt cement. This timer allows all of the aggregate to clear the drying drum and enter the mixer. The asphalt cement is timed for each mix design so that the last of the aggregate and the asphalt cement meet at the mixing drum together.

Any mix that is waste is discharged into the loader bucket, dump truck or into a holding area under the drag slat discharge gate and is taken to the RAP pile for later crushing

HOT STOPS - HOT STARTS

If the silos become too full, the plant operator may have to make a hot stop, (dryer and mixer full of material). No material is discharged during a hot stop. The plant can remain in this mode for up to two hours.

After a hot stop, the plant will make a hot start. The exhaust fan and burner will be started and once running, the rest of the plant will be started. Cold or off-spec material is discharged through the drag slat discharge gate and placed in the RAP pile for later use.

MALFUNCTION STOPS

If a malfunction (computer or mechanical) occurs during drying/mixing operations, a hot stop will be initiated until the problem is corrected. If the problem cannot be corrected and the dryer/mixer must be emptied, the asphalt cement can be controlled manually. This will be done only after all attempts to correct the problem are exhausted. If the asphalt pump fails and cannot be repaired, the drum will be emptied of mixed material until the discharged aggregate gets dusty. The drum will then be stopped and the asphalt pump repaired.

A water supply at each location can be used to knock down any blowing dust.

IDENTIFICATION OF SUPERVISORY AND MAINTENANCE PERSONNEL

An updated list of current supervisory and maintenance personnel shall be kept at the plant. Descriptions of the responsibilities of these individuals for operation of the plant during startups, shutdowns, or malfunctions, as well as inspections and repairs, shall be stated on the updated list.

Appendix C – Continued

DESCRIPTION OF INSPECTED ITEMS

A daily walk around inspection will be done each morning while the plant is warming up. After startup, observations will be carried out continuously throughout the day by the plant operator and the loader operator during operations. The following items shall be inspected/observed:

- Roadways (fugitive dust)
- Cold feed bins (falling aggregate)
- Aggregate feed belts (falling aggregate)
- Dryer (seals for dust escaping)
- Bucket elevator (seals for dust escaping)
- Aggregate chutes (seals for dust escaping)
- Screen (door seals for dust escaping)
- Weigh hopper (seals for dust escaping)
- Mixer (seals for dust escaping)
- Baghouse stack (opacity)
- Baghouse screws (shaft and door seals for dust escaping)
- Chutes, screw augers, and housings (for any leaks)

A more thorough inspection will be done during the winter shutdown (between December 1 and April 1) for maintenance and repairs. The following items will be inspected and repairs made as needed:

- Cold feed bins (seals and belts rollers)
- Belt lines (belts and rollers)
- Dryer (shell, seals, flights)
- Bucket elevator (chain, buckets, bearings, seals)
- Chutes (liners, seals)
- Screen (door seals, fugitive ductwork)
- Weigh hopper (seals, calibration)
- Mixer (seals, wear plate)

The baghouse will get a thorough inspection from the front inlet to the rear exhaust fan. This inspection will be done every spring before the paving season starts. (Additional visual inspections may be required before and during the paving season as required by Appendix B). The following items to be inspected are:

- Ductwork (inspected for thickness, will it last for the season)
- Blow pipes, diaphragm valves (are they working, good connections)
- Bags and cages (condition of bags, age, number replaced during last season)
- Dust screws - shaft seals and screw cover doors

REPLACEMENT PARTS

As required by Appendix B, the following shall be kept in stock at all times:

- A minimum of 15 bags.
- A minimum of 5 pounds of black light powder. (Recommended quantity for the number of square feet of baghouse cloth.)
- A minimum of two (2) tubes of silicone caulk for minor leaks around doors and seals.

Appendix C – Continued

BAGHOUSE VARIABLES AND MONITORING

The baghouse is monitored continuously (as specified in Appendix B) by the use of a magnehelic gage. The pressure differential between the dirty and clean side of the baghouse shall be maintained above 2 inches water gauge. If the pressure rises above 10 inches water gauge, signaling an inoperative diaphragm valve, the plant shall be stopped and the defective valve repaired or replaced. If the differential pressure drops below 2 inches water gauge the company shall inspect for a torn bag or a problem with the tubesheet between the dirty and clean side of the baghouse. This problem will also result in a dirty stack. The only time the baghouse will normally drop below 2 inches water gauge is if a large number of filter bags are replaced.

If a large number of bags are replaced the pressure on the magnehelic will drop slightly. This drop will only last for a day or less depending on the production.

Monitoring of the baghouse is done by observation, magnehelic gage, pressure detection alarm, or by the high temperature alarm that is set to go off at a stack temperature of 375/400 degrees Fahrenheit.

CORRECTIVE PROCEDURES AND RESPONSIBLE PERSONS

This startup, shutdown, malfunction plan shall be followed to meet the compliance limits. If the limits are exceeded it is the responsibility of the plant supervisor, or in his absence the plant operator, to stop the plant and correct the problem immediately. Rule 336.1912 shall be followed when abnormal conditions exist.

DRUM MIX AND BATCH - NORMAL STARTUP PROCEDURES

During startup, operation and shutdown the following items will be monitored continuously:

Stack Temperature - As material starts through the plant the temperature must be brought up slowly by manually adjusting the burner. As the operator opens the burner, the exhaust fan damper must also be opened to maintain one quarter to one half inch of suction on the burner end of the drum.

Mix Temperature - As material starts flowing through the plant it is critical to watch mix discharge temperature in addition to the stack temperature. A discharge temperature that is too high will cause blue smoke. A temperature that is too low will produce an unacceptable product.

Exhaust Magnehelic - As material is fed into the drum and the burner is opened up, the differential pressure in the baghouse will increase. As the plant reaches normal operating parameters the pressure differential will settle between 2 and 10 inches water gauge. The differential pressure can be adjusted by opening or closing the exhaust damper. The operator shall keep between one quarter and one half-inch draw on the burner end for maximum efficiency.

Along with monitoring the above items the operator shall monitor the weather to determine any changes to the moisture levels in the aggregate and RAP. The moisture content determines how to adjust the burner to reach the desired mix discharge temperature.

APPENDIX D METHOD FOR CALCULATING ANNUAL EMISSIONS

EUHMAPLANT

The permittee shall keep in a satisfactory manner, monthly and 12-month rolling time period emission calculation records of all criteria pollutants listed in the Emission Limit Table for EUHMAPLANT. If stack test results for EUHMAPLANT exist for any of the pollutants, the permittee may use those stack test results to estimate pollutant emissions subject to the approval of the AQD. In the event that stack test results do not exist for a specific pollutant, the permittee shall use the applicable emission factor listed in the Emission Limit Table to estimate the emissions of a pollutant from EUHMAPLANT. The permittee shall keep all records on file and make them available to the Department upon request.

Until stack testing is completed for an applicable pollutant, monthly emissions shall be calculated based on the pound per ton emission limit applicable for each pollutant as shown in Special Condition I in EUHMAPLANT. Once stack testing has been performed, the stack test results shall be used for the fuel type running at the time of the test.

Monthly Emissions:

The sum of the daily production volumes for a given month shall be calculated to determine the monthly production in tons.

The monthly production in tons shall be multiplied by either the emission limit or emission factor determined by stack testing in pounds per ton of each pollutant to determine the monthly pounds of emissions which shall be divided by 2,000 pounds per ton.

An example for PM is provided below:

$$PM \text{ Emissions } \left(\frac{\text{tons}}{\text{month}} \right) = 0.04 \frac{\text{lb PM}}{\text{ton HMA Produced}} \times \frac{\text{tons HMA Produced}}{\text{month}}$$

For monthly HAP emissions, the same methodology as described for criteria pollutants shall be used. For HAPs with emission limits in Special Condition I, the emission limit shall be used to calculate emissions until emissions of a pollutant have been determined by stack testing. For HAPs that do not have associated emission limits, the AP-42 emission factors applicable for each fuel type shall be used for EUHMAPLANT to calculate the monthly emissions.

12-Month Rolling Emissions:

The permittee shall sum the criteria pollutant emissions from EUHMAPLANT in a given month to the emissions from EUHMAPLANT from the previous eleven (11) months to calculate the 12-month rolling emissions.

EUYARD:

The permittee shall calculate, in a satisfactory manner, the annual fugitive dust emissions for EUYARD for each reporting year using the following emission factors or alternatives approved by the Department such as those used in MAERS or an approved PTI application

| Activity | PM Emission Factor | | Control Efficiency ¹ |
|-----------------------------|--------------------|-------------------|---------------------------------|
| | Quantity | Units | |
| Front End Loader Traffic | 7.84 | Lbs/VMT | 90% |
| Truck Traffic– Unpaved | 7.81 | Lbs/VMT | 90% |
| Truck Traffic – Paved Roads | 1.19 | Lbs/VMT | 90% |
| Aggregate Load in/Load Out | 0.0001 | Lbs/ton aggregate | |
| Wind Erosion | 10 | Lb/day/acre | |

VMT – Vehicle mile travelled

¹Control efficiencies listed are for implementation of the fugitive dust plan detailed in Appendix A. If the permittee implements additional fugitive dust control measures, the permittee may work with the Department to determine equivalent control efficiencies for added control measures.